THE ARCHITECTS' JOURNAL

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# COLOUR PHOTOGRAPHY

We are apt to take photography as a matter of course, as we take other scientific discoveries for granted, without much consideration for the assiduous care and skill which have gone to the making of it and still goes to its improvement year by year. Yet we rely, for the study of architecture, more and more upon photography. Those who can travel and see for themselves even tend to allow a photographic record take the place very largely of those first-hand sketches which it should rather supplement—and that chiefly because of its accuracy. It not only supplies an exact reproduction in outline and detail, but often reveals individual beauties in parts of the picture which had escaped the eye. The student of the past spent days in sketching and studying a single building; the student of the present can make an even more accurate record in as many hours. Yet to have lived for days with a beautiful building, to have seen it at different times and under different lights, to have steeped the mind in it—this is something gained which no fleeting impressions or mechanical methods can give. There is a completer grasp, a better appreciation of material, of colour, and of atmosphere.

To the majority architectural photography is the medium by means of which the great buildings of the world are known and studied. It has become a necessity, as well as a liberal education, in innumerable ways. It may be considered, quite roughly, from two different aspects. There is first the clear reproduction of a building, in outline and detail and perspective, with what has come to be known as "photographic" exactness. This is absolutely invaluable. The other method of photography depends for its results chiefly upon atmospheric effects, bright sunlight, and dark shadow, the lines of the composition strongly marked—a pictorial impression rather than an exact record of detail. It has a certain likeness to etching, though without the quality of line. Photographs of this kind produce an effect of actuality even more real than detailed photographs. They portray certain definite æsthetic impressions or, as it were, moods of the building. The greater the building, the more æsthetic value it possesses, the larger range of expression it seems to have, varying with the time of year and the time of day. Probably the chief reason for this lies in the interaction of architecture with the elements and, above all, with light—and light is closely related to colour, and colour owes more to light than even form does. By a scientific *tour de force* photography harnesses the light and sets up chemical action, and reproduces the image of a building in all the clearness of its form and light and shade, but with its essential colour lost. The result is that we have become used, unconsciously, to seeing buildings in outline and form, but in grey and colourless tones, and not according to the conditions under which, in reality, they must inevitably stand. Is it surprising that we are so backward and imperfect in colour sense, or that we over-emphasize form and outline at the expense of colour and atmosphere? We are largely colour-blind.

The question arises: Can photography make good this defect in its methods? Colour photography there has been for years, but the process has been a lengthy and expensive one, and not within the general reach. In the last few months, however, an improved method has been made public of which the results are astonishing. It is claimed that the "method as a whole provides an easy and satisfactory means of taking photographs in natural colours with ordinary cameras and ordinary photographic appliances." At the Exhibition of British Photography now being held at Prince's Galleries a selected number of these coloured photographs are on view. The new process is based upon the previous one; that is, upon the use of primary colours superimposed upon one another, while, in addition, certain colours are reproduced by the direct action of light. Now for the first time it is practicable to print colour photography on paper in the ordinary way. This is a great advance, and no doubt with time and practice and further development as high a standard will be possible as is now reached in black-and-white photography. At the present stage it is the simple, strong colours which are the most successful, as in colour patterns on material, or oranges or flowers in still life; also those colours which are the result of the direct action of light, as in the garden subjects, where flower borders and groups are excellent. There is a very good example of a stained glass window—generally a difficult subject to treat. For the presentation of simple, vivid colour schemes for decoration this method would be very satisfactory. Buildings out of doors, where the colouring is graded and complicated in the extreme, would probably be less responsive to treatment at the moment. May we not confidently look forward to a great future development in architectural colour photography, which will enable buildings to be reproduced in their completeness, and under true conditions of form and colour and lighting; when the camera will not only tell, as has been said, the truth, but as far as is possible the whole truth, and help us to enter into an inheritance whose richness we have hardly as yet begun to appreciate.



A photograph of these details appears on the previous page.

# NEWS AND TOPICS

WHAT is the desirable size for a city? This question might produce some illuminating replies from such people as, say, a Minister of Health, a chairman of underground railways, the engineer responsible for the water supply to New York City, and a leader of industry like Mr. Henry Ford. Also, one must consider the opinion of the suburban "straphanger" on a foggy December morning, and the driver of a wagon wending his way through miles of suburbia to reach his London market at dawn! So intricate is the mechanism of an overgrown city that any cog in the machine thrown out of action by strike or storm is sufficient to endanger human existence in the metropolis. All who have studied the vital statistics and the growth of London and New York are agreed that there is a limit beyond which a city cannot grow without serious loss of economy and vitality. Only a drastic remedy will suffice. The Garden Cities and Town Planning Association, in a leaflet published recently, again sets forth concisely an all-party programme for the establishment of compact, self-contained satellites, where the surplus population and industries of London might be successfully established. Letchworth and Welwyn provide sufficient proof of the practicability of this method. Politicians of every party have given lip service to the desirability of creating entirely new towns, instead of allowing more suburbs to divorce town and country, but it remains for a centralized authority to overcome the objections of the local authorities in whose territory the new colonies will be planted.

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There is a good deal of talk at present to the effect that the Government will be compelled to introduce further town-planning legislation in the New Year, and that then no doubt Mr. Neville Chamberlain will seize the opportunity of extending the provision of the Town Planning Act of 1925 to built-up areas. It is, however, a mistaken idea to imagine that, if this extension is carried out, it will be a suitable method of enabling the London County Council to deal with the preservation of London squares and enclosures. I am told that it cannot be assumed that, if the Act were extended to built-up areas, it would be reasonable to take a London square, together with the surrounding land, over which to calculate the number of buildings permitted to be erected. Nor would it be possible to certify as reasonable any provisions which prevented the redevelopment of the existing buildings surrounding the enclosures on their present site, so long as they satisfied local bylaws as to air space. Nevertheless, apart from London squares, I expect that a good deal of pressure will be brought to bear on Mr. Neville Chamberlain in order to persuade him to give powers to local authorities, specially in view of the slum clearance campaign foreshadowed by the Prime Minister in a recent speech.

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One of the finest embassies in the world has recently been occupied at Buenos Aires by Mr. Robert Bliss, the United States Ambassador to the Argentine. His residence is the Palacio Noel, called after its architect, Don Martin Noel. He has adopted for the design the Spanish colonial style of architecture, which is very suitable for the climate of the Argentine. The house contains magnificent reception-rooms, while the loggias and the gardens are laid out on plans adapted from the gardens of Southern Spain. A feature of the house is the woodwork and the wrought-iron grilles.

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One of the most practical and informative papers on the preservation of the rural amenities of our country was read at a British Association meeting by Mr. James, a member of the staff of the *Whitehaven News*. Mr. James has taken a leading part in the movement for preserving the Lake District, and I am told that more than any other man, by his zeal and local knowledge, he has been responsible for the creation of the regional committees that are now at work in the Lake District. There are many cultured people owning houses in the Lakes, but the members of some of the rural councils are extremely parochial in their attitude, and are still fighting shy of joining in a regional committee. The Cumberland County Council has, however, given a magnificent lead in calling its neighbours to co-operate in the work of controlling future developments.

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The first vice-president of the American Institute of Architects, Mr. J. Monroe Hewlett, is urging that an Architectural Commission should be founded in New York to make a co-ordinated study of city planning. He hopes that the State Fine Arts Commission, that was abolished a few years ago, will be re-established. In his opinion the big building projects of private enterprise, as well as public works, should be submitted to the scrutiny of some form of duly appointed art commission. Mr. Wiley Corbett, a member of the Advisory Board of the Princeton School of Architecture, is supporting this demand. He recently stated that in his opinion progress in city planning and structural design in Europe has been due to the high conception of duty behind the construction of public edifices, which have all undergone some form of censorship before the plans have been approved.

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I am glad to see that Mr. R. Gleadowe, the present Slade Professor of Fine Art in the University of Oxford, has taken up the question of the study of architecture in the University. He considers that architecture is the master art, as drawing is the master craft, and that it is a necessity in our private and public lives. He would have a great school of architecture founded at Oxford, where he thinks there is room for more "humanity" in the study of architecture in a practical life and also for training a number of intelligent amateurs to understand what architecture means. It will be remembered that the R.I.B.A.'s Committee pointed out that there were no Final Schools of Architecture in England outside London, Liverpool, and Manchester, and recommended that one of the two additional final schools required for the South of England should be established at Oxford. I hope Mr. Gleadowe will continue to appeal to some admirer of Wren and Oxford to found there a great school of architecture

*A girder 100 ft. long to be used in the Dominion Theatre, Tottenham.*

A few weeks ago a correspondent sent me a picture of what he thought to be the biggest girder in the world. Its length was 66 ft. But now Messrs. Dawnay send me a photo of a girder to be used in the New Dominion Theatre at Tottenham which is about 100 ft. long. There is no limit to these things! Whichever way we look we see either the infinitely small, or the infinitely big, until the eyes ache and one has to give up!

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The exhibition of twenty years of Underground posters now being held at the New Burlington Galleries, Burlington Gardens, discloses without doubt that the Underground group of companies has played by far the most important part in the history of British commercial art. In its remarkable sweep forward since 1908 the Underground has the additional credit of bringing in its train other advertisers who are now producing good posters. The whole art of the poster has been given a status it probably never would have had but for the intelligent encouragement of good designers by this group of companies under the capable directorship of Mr. Frank Pick. Almost every school of artistic thought seems to have been explored, and not a little of the success of the Underground posters is due to their catholicity. It is significant that this enterprising railway has never bored us with fatuous, self-laudatory expositions in the art journals of what advertising should be, as is the case with many of its imitators. Without fuss or commotion the Underground has steadily built up a reputation for being the leaders in matters of poster design. There is no point in giving here a list of posters and designers, as both are already so well known to all interested in these things. The Underground and its designers have earned a debt of gratitude that it would be difficult to overestimate.

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At Céret, where artists congregate to form the Céret circle, of which Aristide Maillol, the sculptor, is the head, is his Monument to the Dead, a simple, sitting, bowed female figure occupied with grief. At the Goupil Gallery is the antithesis of this in the torso in lead, a part of Maillol's "Monument à Blanqui." It is great. It is not only colossal—the largest torso I have ever seen—it is a most compelling piece of figure-modelling, and the very essence of plastic. Maillol tried carving as he tried other forms of craft-work, and produced several very beautiful things, but the Blanqui memorial torso proves conclusively that modelling is his forte. The whole figure is used in the monument—a magnificent striding woman full of strength and purpose; a little brutal, but the brutality relieved by the astonishing finesse of the modelling. Maillol has made also a monument to Cézanne in the painter's birthplace at Aux-en-Provence, and in this also his command of the figure is seen in the reclining nude woman holding votive flowers. Always the figure for Maillol. There is a delicious "Portrait du jeune cycliste"; another very lovely female torso in bronze, beautifully patinated, and several small bronzes. A rare decorative "Groupe de deux Femmes" is interesting, but the wall-panel in lead, "Le Désir," is more important if not entirely satisfactory as a relief. The loss of the young man's left leg s felt, and the variation in the planes of the background is a distraction.

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There are certain words in the dictionaries and glossaries of architecture and building, as of every other science and art, which were once borne by men. To have one's name thus perpetuated is the surest hold on fame. Mansard, Macadam, Wedgwood, Chippendale, Sheraton, Bessemer—their names have passed into the language and are not likely to again pass out. There are names even now in the course of passing into words, and it is interesting to note them as they establish themselves. Heal is probably one of them, and a week or two ago I came across a quite new one. The Metropolitan-Vickers Electrical Co., Ltd., known again as Metro-Vick, have invented the word "Metrovication" as synonymous with modern electrification. We give greeting to it, and send it on its way to join others of the brotherhood—ohm, ampere, and volt.

ASTRAGAL

# THE DISFIGUREMENT OF THE COUNTRYSIDE: i

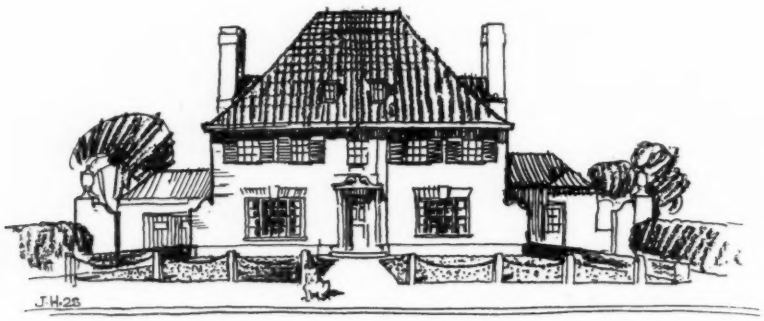
[BY ARTHUR J. PENTY]

In ,ormer times it was always assumed that the erection of buildings improved the amenities and added to the beauty of the countryside, and the charm of old towns and villages bears witness to the fact that the assumption was justified. The old villages are always welcome guests. But in these days it is different. We have come to look upon building as a regrettable necessity, as something which fouls the fair face of Nature, and the assumption is equally justified; for ugliness is the norm today. It is so exceptional for anything to be built that we can look upon with pleasure that we naturally listen to any rumour of contemplated building operations with a feeling of alarm.

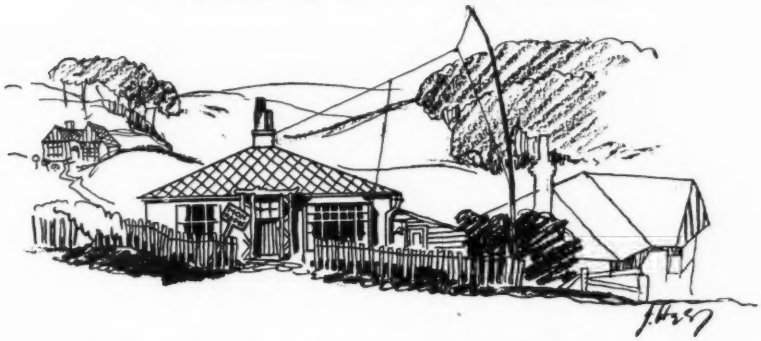
Ever since the days of the industrial revolution this has been true. But it is only since the war that the full force of its effect upon our environment has been felt. Throughout the nineteenth century, or most of it, the general level of design was lower than it is today. The ugliness was greater. But the vulgarity was still, for the most part, confined to our towns and suburbs. Their encroachment on the countryside may have been viewed with a feeling of dismay. But once outside the town and suburb things were comparatively safe. The countryside remained, for the most part, as it was before the impact of the industrial revolution. It was possible to escape from the town and its mechanism and enjoy the quietness and beauty of the country. But this is no longer the case. The motor-car and motor-omnibus have destroyed its peace and spread townsmen over the countryside as they never were before. And in their wake has come the jerrybuilder and something worse than suburban ugliness. Wherever we go nowadays we meet wretched, gimcrack, cheapjack structures, little anæmic bungalows and villas that are a blot on the landscape.

It has been suggested that a remedy might be found in a system of control which empowered local authorities to insist upon a better standard of design. The idea sounds attractive; but much as I should like to see control exercised, I cannot see how it is to be made effective. Local authorities consist of average men with average tastes, and I am quite prepared to believe that from the æsthetic point of view they are perfectly satisfied with the kind of thing that is being erected. No doubt they would prefer more substantial erections. But if they are to be ugly there is no point, from an æsthetic point of view, in making them more substantial, for it could only mean that they last longer. Moreover, in localities where a great deal of speculative building is taking place the building interest is powerfully represented on the local authorities. I know of one such authority which is entirely controlled by jerrybuilders. But even where that is not the case, who is to say what is and what is not a good design? Certainly the local surveyors into whose hands such control would probably fall are not the people to exercise it in a way that would be acceptable to architects, and the prospects of architects of taste being entrusted with such control seems remote, while even if such architects could be appointed to exercise control it is difficult to see how they could get the authority necessary to insist upon good design. So far as I have had opportunities of observing the effect of control in building estates, it appears to me, for the most part, a farce. It is possible to insist upon certain materials being used—to prevent, for instance, a brick house being erected in a stone locality, and it is possible to cut out the more objectionable features of a design. And that as a rule is about as far as control goes; for to obtain more it would be necessary for the architect in control to be very high-handed. The designers of the houses to which we object are entirely destitute of any notion as to what constitutes good architecture. If their designs were rejected fifty times there would be no prospect of getting anything better. Most of such houses are designed and executed by builders. But it avails little if it were insisted that architects be employed; for most men who call themselves architects are really surveyors without a notion of architecture. For this reason nothing short of actually nominating architects to design particular work would be of any avail. And what local body would delegate an architect with authority so arbitrary?

Though it is vain to suppose that any hope can come by giving power to control designs to local authorities, much can be done in other directions. Where, owing to the death duties estates come on the market, individuals and groups interested in preserving the amenities of the countryside might be induced to buy them, either to hand them




*"The length and breadth of houses built on building plots are too equal, and the roof is inevitably too humpy for them to be anything but ugly."*



*" Wherever we go nowadays we meet wretched, gimcrack structures, little anæmic bungalows and villas that are a blot on the landscape."*

over to the National Trust or to ensure that any development that takes place should not be a disfigurement to the countryside. In certain places, I believe, this has been done.

To secure the active interest and support of landowners is the key to the situation; for no body of men are capable of exercising anything like so much influence for good or for evil as they. A little while ago I was asked by a client to find him a site upon which to build a house. He wanted about an acre of land and it was to be situated near a village. I inquired about various possible sites, and I found myself up against the same difficulty every time. The owner whom I approached invariably consulted a surveyor. The surveyor proceeded forthwith to divide the field, of which I wanted a portion, into a series of long, narrow strips, and I was sent a plan with a space indicated by dotted lines on each strip marked " building area." The idea of dividing a field into long, narrow plots is understandable, even if it is not desirable. It indicates a purely commercial attitude. By dividing up a field into long, narrow strips the maximum number of houses of a given size can be got on the ground, and where roads have to be made there is economy in road-making. In consequence, more money can be made by dividing up land this way than in any other. But the dotted lines indicating the building area was a bit of sheer stupidity; since, so far from protecting the interests of the owner, it operated to compel all who built to erect ugly houses. Old houses, except in the period of decline, were long and narrow, and a house is never so beautiful as when it is of this proportion. Every intelligent architect understands this. Yet the building areas which surveyors put on their layouts always approximate to a square. In consequence, the long and narrow type of house cannot be built. Thus it comes about that in small work the architect is damned before he starts by the restrictions imposed by surveyors; for it is simply impossible to build houses of pleasing proportions which occupy such building areas. The length and breadth of such houses are too equal and the roof is inevitably too humpy for them to be anything but ugly. To get rid of such stupid restrictions would appear to be the first point to be gained if the architecture of the countryside and the suburbs is ever to be redeemed; for this stupidity is of suburban origin. It is vain to expect any improvement so long as conditions are imposed which compel the architect who understands his business to erect houses he knows to be ugly. For the conditions imposed are such as to defeat the efforts of the highest architectural skill. It is a matter, I think, the R.I.B.A. or the Council for the Preservation of Rural England should take up with the Surveyors' Institution and with the landlords.

Exasperating as are such restrictions, they are, I believe, for the most part a post-war phenomenon as regards the countryside; but they have for a century been an obstruction to the spread of decent architecture into the suburbs and

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are sufficient to explain why vulgarity reigns there almost unchallenged.

Restrictions on sites and building areas are very irritating, but they are only two of the many obstructions in the path of the production of decent architecture in the suburbs and countryside where small houses are concerned. Architects whose experience of architecture is limited to the more important work fail to realize to what a large extent these obstructions account for the general low average of design.

The law relating to frontage lines is another source of difficulty. According to a ruling of the Courts about a century ago no one has a right to erect a building nearer to the road than that of his neighbours. This ruling is nowadays interpreted by local authorities as meaning that no building shall be erected nearer the road than the one that is first built on any given road or street. A man if he chooses can set a building farther back from the road than those already built, but he must not build nearer. The practical effect of the enforcement of this ruling as positive law is that the position in which the first building in any given road or street is erected is held by local authorities to determine the frontage line of those built later. If the first man to build sets a house back 100 ft. from the road,

*"If the first man to build sets a house back 100 ft., then all who build later must not build nearer the road than 100 ft. The second building erected may be situated half a mile away up the road."*

then all who build later must not build nearer the road than 100 ft. The second building erected may be half a mile away up the road, but the local authority may insist upon it being set back 100 ft. And if a building erected twenty miles away is not required to be set back 100 ft. the reason would appear to be that in such a case the building would come under the jurisdiction of a different local authority, or because the local surveyor is willing to wink at the absurdity. It is easy to see that the effect of this ruling of the Courts as interpreted by local authorities has been disastrous in its influence upon the architectural treatment of our suburbs and the countryside. It stands in the way of any rational architectural grouping of buildings by making the position of each a matter of caprice. The repeal or abrogation of this ruling is urgent. There is no single thing that would do more good, for it would restore to architects the liberty to use their own judgment and common sense to deal with circumstances as they arise. This is another matter for the R.I.B.A. to take up. It may be, as I am disposed to think, that local authorities are exceeding

*"Cottages today are generally over-windowed. The reason for this is to be found in the by-law which stipulates that the area of windows shall not be less than one-tenth of the floor area."*

their powers when they insist that a man shall not build a house nearer the street than the one first erected. The ruling of the Court was clearly made to settle a difference between neighbours, and it may be that local authorities have no legal right to enforce this ruling as positive law. Anyway it is a question worth inquiry into. Perhaps it is a question that can only be decided in the Courts. But if it is to be taken there it will have to be taken there by some organization interested in the question from an architectural point of view, for it is not worth the while of anyone whose sole interest in estate development is the making of money to challenge it because to do so would be very expensive and it would involve delays.

Building regulations are another source of trouble, especially those relating to windows which add to the difficulties of cottage design. It is to be observed that cottages today are generally over-windowed. The reason for this is to be found in the by-law which stipulates that the area of windows shall not be less than one-tenth of the floor area. This by-law was made in Victorian times, and it contemplated rooms 12 ft. or 13 ft. high, which were then the usual thing in middle-class houses. The demand that the area of windows shall be a tenth of the floor area is not excessive for such high rooms and introduces no difficulty in the design, but when applied to cottages and smaller houses where the rooms are only 8 ft. high it is different, for in such cases the demand is for at least 50 per cent. more window area relative to the cubical contents of a room than in the case of larger houses. And this it is generally impossible to obtain without upsetting the elevations. My experience is that there is invariably one room, generally a bedroom, where to comply with this regulation is to upset the elevation. One would like the first-floor windows to be a series of two lights. But a two-light window of the right scale will not give the required area in the case of a small bedroom. To put in a three-light will spoil the elevation. But there is the by-law, and it must be complied with. The

*"Only in rural areas where there is no by-law stipulating the area of windows can a cottage be built today designed as it should be."*

result is to be seen in the generality of cottages built in modern times. Only in rural areas where there is no such by-law can a cottage be built today designed as it should be. Yet the difficulty would disappear if the by-law had been worded differently. If, instead of the window area being made relative to the floor area it had been made relative to the cubical contents of a room, which is only common sense, no difficulty would have arisen. If the by-law had been made to read that 1 ft. of window area be provided for every 120 cub. ft. of the contents of each room, the end of the by-law would be secured and the elevations of cottages would not be upset; nay, if it were 1 to 100 it could be complied with without detriment to the elevations.

Again, the elevations of houses are disfigured by ventilating pipes which go half-way up the roofs. The idea of

*"Elevations of houses are disfigured by ventilating pipes which go half-way up the roofs . . . Such ventilating pipes serve no purpose."*

insisting upon such ventilating pipes is to ensure against the remote contingency that any sewer gas shall enter the house, on the assumption that sewer gas causes typhoid fever. Yet I was told by the distinguished bacteriologist, the late Dr. James Walker, that the theory that typhoid fever could be contracted in this way is an exploded superstition, it having been proved conclusively that it is contracted through contamination of water supplies and not by the smell of sewer gas. In consequence, such ventilating pipes serve no purpose except to disfigure the elevations of buildings. Quite apart from any question of typhoid fever, it is, of course, necessary to ventilate drains. That could be done by carrying a 3-in. pipe up to the eaves, which would be no disfigurement, but for some cryptic reason local authorities insist that ventilating pipes be 4 in. in diameter, and 4-in. pipes are eyesores. It is time these matters were looked into.

In former times the people who built houses in the country had an interest in the country. They were villagers who naturally built in the village in order that they might share the common life, or the squire whose interests were for the most part equally local. The materials used were local materials; because, as in those days the cost of transport was high, nobody thought of building in anything else except in the case of churches where stone was imported if it could not be obtained locally. But in these days the cost of transport is so low that the limitations which compelled the using of local materials are removed.

The people who build houses in the country nowadays are not the natives, but city dwellers who are tired of living in our large cities; and so, instead of building together in groups as happened in the old villages, they dot their houses about anywhere without regard to natural beauty or any sense of fitness; while, instead of building with local material that harmonizes with the landscape, they build with anything that can be picked up cheap. In the past people chose a sheltered position which would give them protection from the wind and rain, and this consideration resulted in houses fitting into the landscape. But in these days people think first of a fine view, and this disposes them to build on the mountain tops. It did not matter when only a few people sought to have a fine view, but when everybody wants a view it is not long before there is no view for anybody.

The trouble here is that everybody approaches the problem from an individualistic point of view, and it is certain that no change will be possible until people come again to look at things from a social point of view, when, perhaps, they will be more ready to build in groups. It is natural when anybody builds a house in an isolated position for it to be detached, but it is different when houses are built near together. For when everybody wants to build a detached house on his own little plot the result is inevitably a scattered one. Even if individual houses are well designed they will not group well if they are all detached. Yet I fear it will be difficult to persuade people to return to the old custom of building in groups, for the only alternative that occurs to their minds is a house in a row with a narrow frontage and miserable back additions. Yet if houses in groups are built with a sufficient frontage they could have every advantage that it is customary to associate with the detached house.

*"The people who build houses in the country nowadays are not the natives, but city dwellers tired of living in our large cities. Instead of building together in groups they dot their houses about anywhere without regard to natural beauty or any sense of fitness."*

Another thing about which it is impossible to do anything until the public have been brought into line is the desirability of building houses up to the road. The charm of old villages is in no small measure due to the fact that most of the houses are not set back in gardens, but are on the road, and it is desirable that this practice should be revived where practicable. Of course, since the advent of the motor-car, this is not always possible on main roads, but the motor-car is not in evidence everywhere in the country. There are plenty of side roads where the motor-car is only occasionally to be met, and there is no reason why in such places when new houses are built they should not be built on the road, either facing it or with the end to the road as are so many old houses in the country. There is much to be learnt from the study of old houses about the placing of houses on sites. Architects ought to give more attention to this aspect of the question. For nothing can be more deadly than the series of detached houses 20 ft. or 30 ft. back from the road which are to be met everywhere.

[*To be continued*]

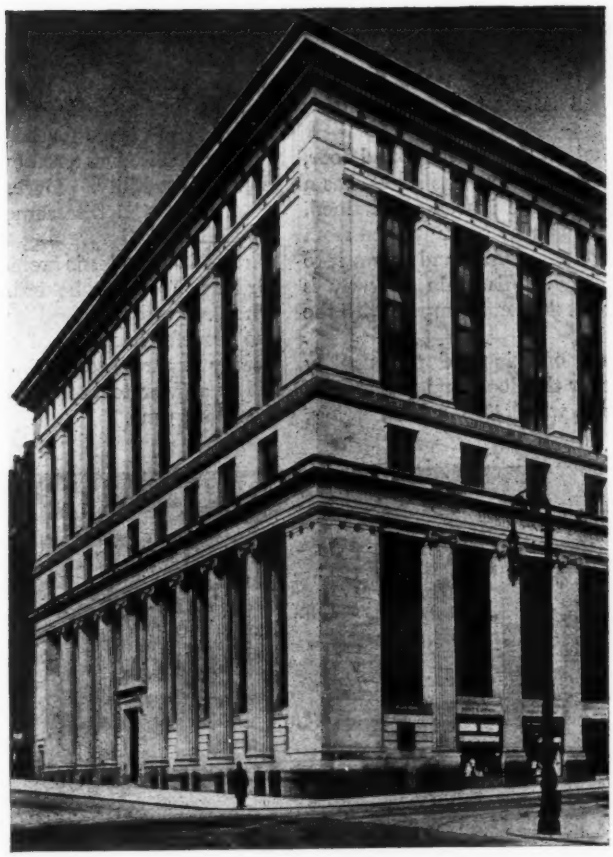
# A NEW SCOTTISH BANK

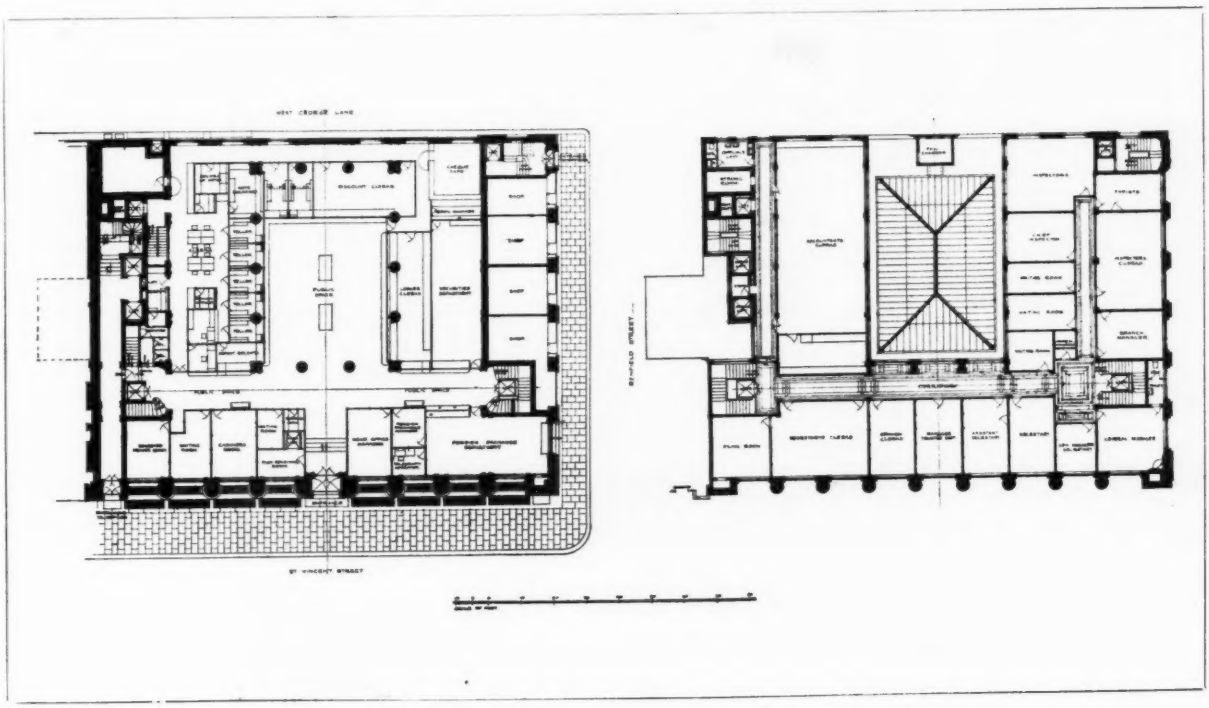
[BY ERIC L. BIRD]

THE headquarters buildings of the greater banks are mostly to be found standing in a solemn group within the City of London, each striving to be a little prouder than its fellow. Their somewhat *Kolossal* dignities have filled the pages of the technical journals to the exclusion of those of the provinces. Among the best of the latter is the new head office for the Union Bank of Scotland, designed by Mr. James Miller and standing in Glasgow. Like its greater London brethren it is designed in the Classic-cum-steel-frame manner and, apart from its merits, which are considerable, reveals quite clearly both the advantages and limitations of the classic as applied to bank buildings.

We use the word "applied" with intent and after some deliberation, since the trimmings of architecture, after the fashion of the age, are merely stuck, or rather hung, to the outside of the building and bear little relation to the nature of the structure. The building is a steel frame, and from the point of view of expression of structure the façade might as well be Gothic, Byzantine, Aztec, or Chinese. Hence, if anything, it is American. Postulating for a moment that this practice of wrapping scenery round an unrelated structure is architecture—or that clothes make the man—one may ask, How far is the classic manner suited to the purpose of this building? First, the façades reveal the war between the modern demand for large areas of window and the essential solidity of classic architecture. Secondly, the horizontalities of classic have landed the designer in difficulties when they are used to express a tall building composed of small rectangles. The plan has the familiar immense banking hall on the ground floor; an office floor over, which holds the headquarters or heart of the bank corporate; while above again are to be found as many floors of lettable space as the building regulations will permit. The courage of the designer in attempting to express externally these elements has resulted in a building cut into two equal parts with a band between them. There are two superimposed buildings with a portion common to

*The Union Bank of Scotland, Glasgow. By James Miller. A detail of the St. Vincent Street elevation.*





*The Union Bank of Scotland, Glasgow. By James Miller. Above, the elevation to St. Vincent Street and Renfield Street. Below, the plans.*

F

both. This is clear if a piece of paper is placed over the illustration obscuring first the top section of office floors and, second, the ground floor.

But within the limits of his convention the architect has done well. But how well is this classic convention handled!

The detail is refined and scholarly; the main ground floor, which, after all, is the one best seen from the street, has a feeling of great dignity and the scale is well maintained. Unlike many of his contemporaries he has refrained from tampering with the charming Ionic Order and leaves it to tell in all its beautiful simplicity. His main doorway is just enough for emphasis and yet does not compete with the Order.

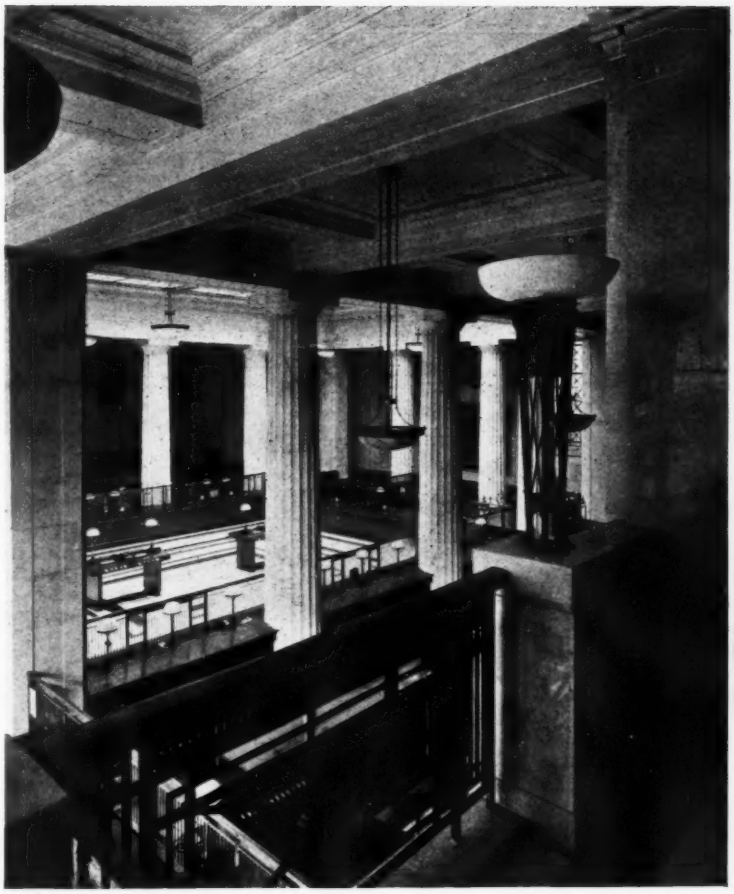
We are thankful for the omission of the usually inevitable lump of statuary over the door, and it is a relief to find a commercial exterior which has neither swags, wreaths, cartouches, aeroteria, nor that *cliché* the pulvinated frieze with guilloche ornament. Inside there is the same dignified restraint, a serenely easy use of marble which is purely Greek in spirit.

Here, undoubtedly, lies the reason for the universal adoption of classic for bank buildings. Even where it is mishandled it gives a sense of dignity, solidity, and an air of financial stability. Here, where it is used with taste, scholarship and discernment, it goes very much farther. In addition to impressing the general public it sets a standard of taste in classic architecture which leaves the ordinary Ordermongers far behind. To an architectural purist—who begs to be allowed his tilt at the classic convention—the graceful handling of classic forms, the sense of classic beauty imparted to an obviously modern building, form the ablest answer to the "modernist" case that he has seen for a long time.

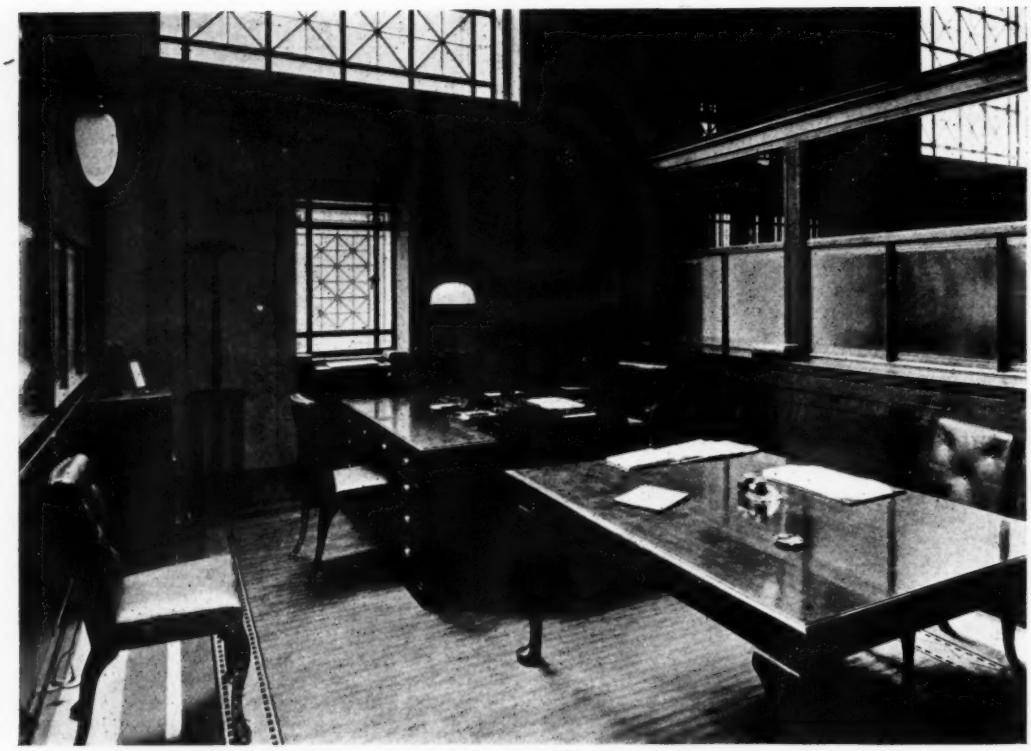
*The Union Bank of Scotland, Glasgow. By James Miller. A view from St. Vincent Street.*

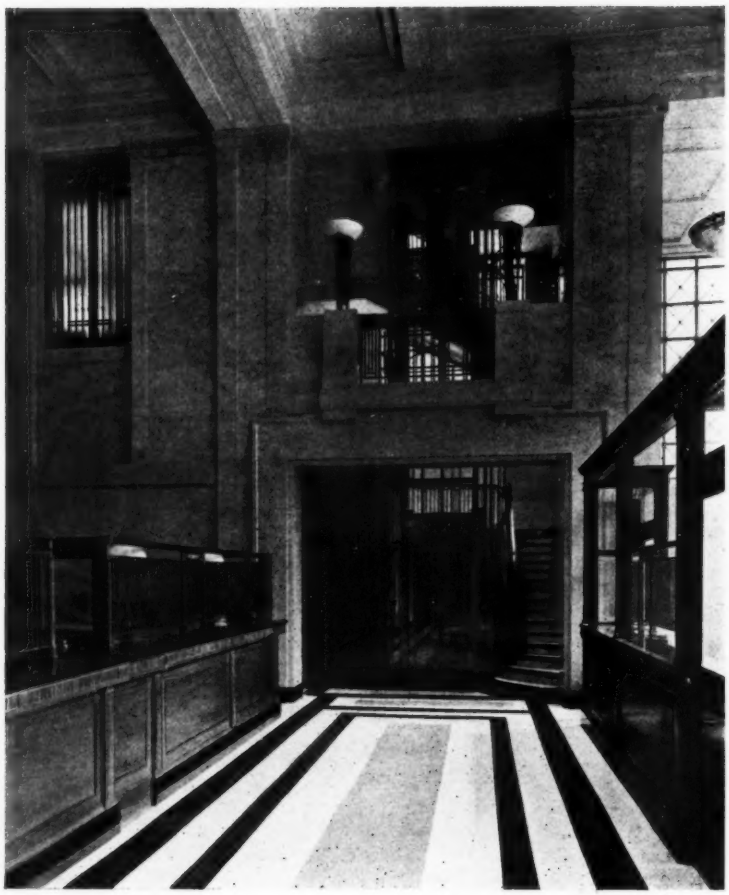
*The Union Bank of Scotland, Glasgow. By James Miller. View of the main entrance from the banking hall.*

*The Union Bank of Scotland, Glasgow.*
*By James Miller. The banking hall.*



*The Union Bank of Scotland, Glasgow. By James Miller. The banking hall from above.*





*The Union Bank of Scotland, Glasgow. By James Miller. Above, the head office manager's room. Below, the public space and lift.*

*The Union Bank of Scotland, Glasgow. By James Miller.*
*Above, the general manager's room. Below, a committee room.*

# SOME LEGAL QUESTIONS RELATING TO LIGHT AND AIR

[ BY A BARRISTER-AT-LAW ]

CERTAIN questions relating to light and air often present difficulties to professional men and sometimes involve those for whom they act in expense, if not in litigation. There is, of course, no distinction to be drawn between the acquisition of a right to light and a right to air through an opening or aperture in a dwelling-house or a building on the dominant tenement. The old legal authorities on the subject of ancient lights were exceedingly numerous and were by no means easy to reconcile; indeed, in many instances they appeared to be inconsistent with one another. But a leading case, twice argued before the House of Lords just over twenty years ago, resulted in certain propositions being laid down upon the true nature and extent under our law of the easement of light. Putting it shortly, there was a complete recognition of the right of the owner or occupier of a dominant tenement to the uninterrupted access through the ancient windows of his business premises of a quantity of light, the measure being what is required for the ordinary purposes of the inhabitancy or business of such dominant tenement according to the ordinary notions of mankind. The question for what purposes such owner or occupier has thought fit to use the light, or the manner in which he may find it convenient to arrange the internal structure of his tenement will not affect the matter. It may be stated that the actual use will not increase the right nor will it diminish it. The principle applied in the past was also approved, namely, that the question in these cases is whether the obstruction in any given instance is a nuisance. It was, moreover, laid down that the rule of 45 deg. is not a rule of law, but that it may properly be used as prima facie evidence in the event of proceedings.

The purely legal right of an owner or occupier of a house or building with windows which enjoy a privilege as ancient lights, in regard to the light coming to those windows, is in a class to itself known as negative easements, and it consists of the right to prevent the owner or occupier of an adjoining tenement from building or placing on his land or premises anything which has the effect of illegally obstructing or obscuring the light of the dominant tenement. An easement, defined in its general sense, should be understood to mean that right which the owner of one tenement, which is called the dominant tenement, has over another tenement, which is called the servient tenement, not only to compel the owner of the latter to permit something to be done, but also to compel him to refrain from doing something, on that other tenement, for the advantage of the former.

It may be desirable to point out here that the executors and administrators have been held liable to be proceeded against in an action for an obstruction by their testator of the ancient lights of a building belonging to the plaintiff, on the ground that as this was a continuing wrong the action could be maintained, notwithstanding the fact that the obstruction was actually completed more than six months before the death. It will generally be understood, of course, that a nuisance may be defined as some act which unlawfully and unwarrantably injures or prejudices the rights of another person. If a nuisance arises not directly from the act of the defendant, but only incidentally from something which he has done, he is nevertheless liable in respect of it, if it can be regarded as the probable consequence of his act; while if a person creates a nuisance on his property, and then conveys or demises it to another, they will both be liable in respect of it. Prima facie, in the case of a nuisance on premises in the occupation of a tenant, the latter and not the landlord will generally be responsible, in law, and in such circumstances the remedy will be against the tenant, if the landlord is not a party to it in any way, and the tenant is under covenant to repair. But the landlord will be liable if he by licence has authorized the doing on his land of something whereby a nuisance is created. Moreover, if an act is done which actually amounts to a nuisance to some person or persons, it will be no defence to say that the act is a benefit to other persons, or to the community at large, or that the place where it is carried on is very convenient for the public. It has been held that if a man comes to a place and finds a nuisance is in existence he has an equal right to his legal remedies in respect of that nuisance as if he had been there first and the nuisance had been afterwards established. But it will readily be appreciated, of course, that these remarks should be applied to private nuisances, which are acts affecting some particular individual or individuals, and not to public nuisances affecting the public at large.

It is only possible in a short article to deal with a few aspects of this question, and those only in their general sense. It will be observed, however, that the House of Lords case mentioned has left the subject of the obstruction of ancient lights in regard to nuisance exactly where it was before. But it has made the law clearer in regard to the test of nuisance that must be applied. "The test now is, not how much light has been taken—and is that enough materially to lessen the enjoyment and use of the dominant tenement that its owner or occupier previously had—but how much light is left, and is that enough for the comfortable use and enjoyment of the tenement according to the ordinary requirements of mankind?" The matter is one of fact, for it cannot be predicted as a matter of law, as pointed out in another case, whether any particular business, e.g. an architect's, is an ordinary business in the sense that it only requires an ordinary amount of light.

Under the Prescription Act, "when the access and use of light to and for any dwelling-house, workshop, or other building shall have been actually enjoyed therewith for the full period of twenty years without interruption, the right thereto shall be deemed absolute and indefeasible," unless the same was enjoyed merely by written consent. An indefeasible right, however, to the access and use of light may be gained apart from and independently of this Act, namely, by prescription at Common Law. Nothing is to be deemed an interruption under the statute unless submitted to for a year after notice. It has been held that enjoyment for 19 years 330 days, followed by an interruption of thirty-five days immediately before an action was brought, was sufficient to establish the right. But it has been also held that notwithstanding the statutory provision the Court will not interfere by injunction to protect the inchoate right to an easement of light, although the light may have been actually enjoyed without interruption for more than nineteen years next before action brought.

It may briefly be added, perhaps, that if a person grants a house in which there are windows neither he nor anyone claiming under him can stop up the windows or destroy the lights. This is based on the well-known principle that a man shall not derogate from his own grant. If a person, however, has a house and land and grants the land first, reserving the house, the purchaser of the land can block up the windows of the house. But if the owner of the land and the house sells the house and the land at the same moment, and expressly sells the house with the lights, the purchaser of the land is not entitled to block up the lights, the vendor being the same in each case, and both purchasers being aware of the simultaneous conveyances. Under the Law of Property Act, 1925, a legal easement is to enure for the benefit of the land to which it is intended to be annexed.

# ANNOUNCEMENTS

Mr. William Walter Wood, A.R.I.B.A., M.I.STRUCT.E., who recently resigned the post of Assistant Professor of Architecture in the Royal School of Engineering (Ecole Royale Polytechnique), Cairo, has been appointed head of the Department of Architecture of the Plymouth Central School of Arts and Crafts, and has transferred his practice to 8 Sussex Terrace, Plymouth. Telephone and telegraph: Plymouth 2501.

Mr. W. Philip Reynolds, O.B.E., F.F.A.S., quantity surveyor, has taken into partnership Mr. William F. Young, P.A.S.I., chartered quantity surveyor, who has been associated with him in his practice for some time past. The firm will practise under the name of Reynolds and Young, quantity surveyors, at Premier House, 150 Southampton Row, London, W.C.1. Telephone: Terminus 6781.

# ENGLISH PRECEDENT

34 *St. Mary, Monnington, Herefordshire. Here is a church almost entirely rebuilt in the reign of Charles II. Being in a remote part of the country, it wears no London fashions. The general proportions are those of an earlier structure, and medieval fragments have been contentedly re-used. All that is seen in the photograph of the east end, however, is Caroline work. This is the stonework that belongs by rights to the Caroline and Jacobean woodwork with which many of our older churches are enriched. Restoring architects have made it rare.*—[H. S. GOODHART-RENDEL.]

# A RAMP-AND-TWIST BALUSTRADE: iii

[BY J. STIRLING BOYD]

THIS method, although simple in its application, requires a considerable amount of material, and where the cost of the latter is excessive it may be advisable in cutting the coping-stones of ramp-and-twist work to produce them from oblique cylindrical blocks. This method will be described later for stone C—a coping-stone on the quadrantal wall.

Stone A—plain base-stone of quadrantal wall: The dimensions —3 ft. 1 in. × 1 ft. 6 in. × 2 ft.—of the block required for this stone can be obtained from the bed mould VIII, figure one, the overall vertical height being ascertained from the face moulds or elevation. Begin by working the bottom bed as a plane surface, and scribe the bed mould, cutting four chisel drafts at right angles to the former—see figure three. Bring the stone to the exact height of the face mould, and form the top bed as an operation plane, scribing thereon the bed mould. Now work the two cylindrical surfaces by running drafts parallel to those previously cut. Carefully adjust and scribe the convex and concave face moulds, the application of these being guided by drawing lines on the cylindrical surfaces at right angles to the operation planes—see figure four. The joints—which are plane surfaces—can now be cut to the lines of the face moulds, and while cutting the upper joint the small horizontal bed is formed to the height given by the face moulds. Now cut the vertical ashlar joint to the lines on the bottom bed, and sink the vertical cylindrical surface, which will coincide with the ashlar wall when the stone is in position. The stone can now be completed by cutting a series of straight drafts to form the upper helicoidal surface of the stone in the direction shown on diagram X, figure one, which is a sketch of the finished stone.

Stone B—moulded base-stone of quadrantal wall: The dimensions of the block required are 1 ft. 10 in. × 1 ft. 2 in. × 1 ft. 8 in. The preparatory operations on this stone are similar to those described for stone A, except that the top bed should first be cut —see figures five and six. After cutting the joints—which in this stone are helicoidal surfaces—to the lines of the face moulds, the section mould of the base is inscribed. Now cut the vertical joint at right angles to the top bed and "line in" the depth of the sinking on both sides to form the cylindrical surfaces of the ashlar wall which rises above the moulded base. The mouldings should now be worked to the section mould previously scribed on the joints. Reverses (see diagram XI, figure one) cut from wood and fixed on a flexible lath should be applied to ensure uniformity in cutting the mouldings. The lower bed of this stone is a helicoidal surface, and this can now be cut as already explained for the helicoidal bed of stone A. The completed stone is shown at diagram XI, figure one.

Stone E—moulded base of balustrade: The moulded base of the balustrade is shown in figures seven, eight, and nine. Work the bottom bed and thereon scribe the bed mould. Cut drafts at right angles to this, and bring the stone to the depth obtainable from the face mould, the upper surface being an operation plane —see figure seven. On this plane scribe the bed mould, adjusting it carefully to stand exactly over its first position on the bottom bed. Now work the cylindrical surfaces, and on them scribe the flexible face moulds, adjusting the latter to lines squared from the horizontal beds—see figure eight.

The joints, which (as already explained) are plane surfaces, can now be cut to the lines of the face moulds and to the lines scribed on the bottom bed, the vertical joint at one end of the stone being cut at the same time. Now scribe the section mould of the base on each joint.

The superfluous material above each baluster seat can now be "pointed" off, and the beds and vertical sides "cleaned" through. On these surfaces trammel the width of the baluster seats and work them to a finish as shown in figure nine.

Lastly, work the moulding to the section mould previously scribed on the joints, reverses being applied to ensure uniformity in cutting the moulding—see figure nine.

Stone F—moulded coping of balustrade: The moulded coping is shown in figures ten, eleven, twelve, and thirteen. Prepare an operation plane and on it scribe the bed mould. Cut drafts at right angles to this plane and bring the stone to the

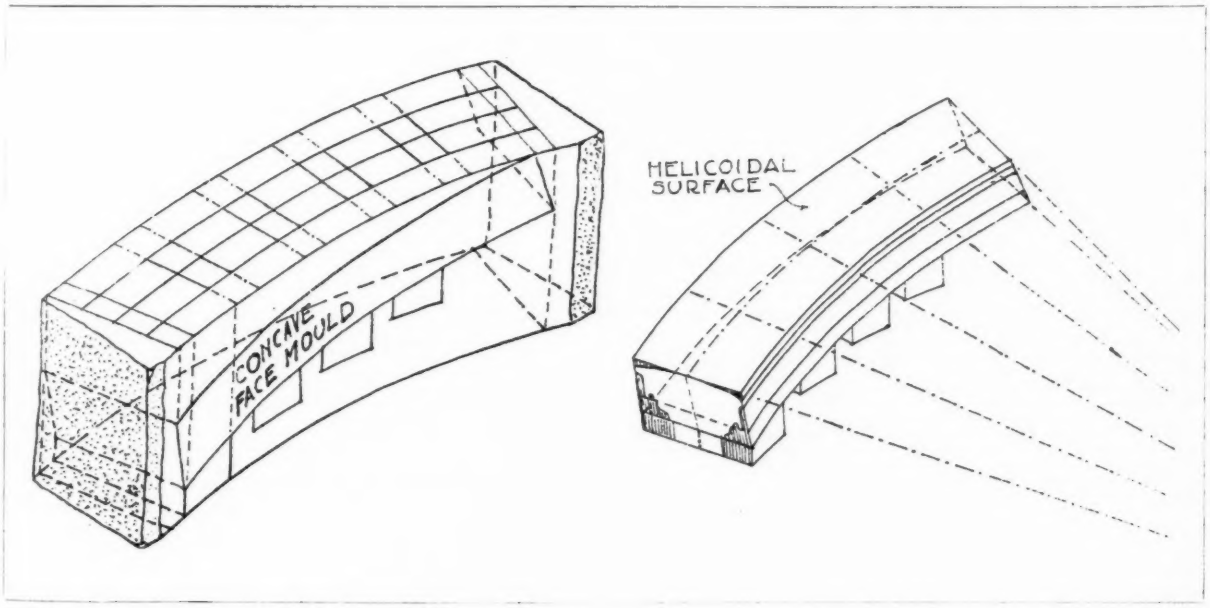



*Figure eleven* *Figure twelve*

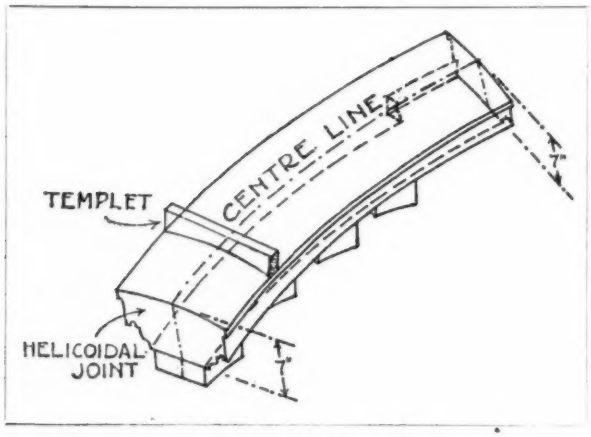



*Figure thirteen*

exact height of the flexible face moulds. On the operation plane inscribe the bed mould—see figure ten. The stone can now be cut to the cylindrical form as shown in figure eleven, and the face moulds scribed on the concave and convex surfaces. Now cut the joints and, after turning the stone to rest on its upper bed, work through the baluster seating as shown in figure twelve. The superfluous material on the upper surface of the coping is now removed, and the helicoidal surface formed by a series of drafts cut in the direction of the radial lines shown in the figure. These lines are each horizontal and are generators of the helicoidal surface. From this surface trammel on the width of the various parts of the moulding. Also trammel the width of the baluster seats and cut them to a finish, at the same time working the mouldings through as already explained for stone E.

The upper surface of the coping can now be formed to the segmental curve, being checked for accuracy by the application of a templet cut to the section mould—see figure thirteen, which is a sketch of the finished stone. It will be observed that the joints are helicoidal surfaces, and at the upper end on the convex side the lower member of the moulding is stopped by a small block which forms part of the die of the balustrade. If there were no projection on the convex side of the die the moulding would run uninterrupted from joint to joint as on the concave side.

Stone C. Produced as an oblique segment of a cylinder—see figures fourteen, fifteen, sixteen and seventeen: The dimensions of the block required by this method are approximately 5 ft. 6 in.× 1 ft. 6 in.× 11 in., the contents being 7·562 cubic feet. Were the stone produced as a segment of a right cylinder as for the stones previously described, the dimensions of the block would be approximately 3 ft.× 3 ft. 4 in.× 1 ft. 6 in., the contents being 15 cubic feet. Thus for stone C, a saving in material of nearly 50 per cent. may be effected, but against this must be placed the extra cost of labour in producing the stone by the oblique segment method.

To determine the dimensions of the block required, and as a preliminary to the production of the raking bed moulds, it is necessary to draw an elevation of the stone as shown at diagram J, figure two. From the centre A, with radius 4 ft. 7½ in., draw in plan diagram G, the face of the cylinder containing the convex face of the coping. Concentric with this curve and with radius 3 ft. 4½ in., draw the corresponding concave side. From the central point 4 on the convex side set out the plan length of the arc 1—7, transferring by measurement from the general plan, diagram I, figure one.

Now draw radial lines from one and seven to the centre A, determining the points $1^1$ and $7^1$ on the concave side. These radial lines are the upper arrises of the lower and upper joints respectively. In like manner draw the radial lines through the other divisions—which are equally spaced—giving the corresponding divisions on the concave side. This completes the plan of the upper helicoidal surface, which can now be drawn in elevation.

From any convenient point such as *1a*, diagram H, set up on a vertical line the exact height (*1a*—*1b*) between the upper arrises of the two joints. Divide this into the same number (6) of equal divisions as in the plan. On the horizontal lines drawn through *1a* and *1b* determine the elevation of the upper arrises of the joints by projecting from the points 1—$1^1$ and 7—$7^1$ in plan. In a similar manner draw horizontal projectors from each of the divisions on the vertical line *1a 1b*, and from the remaining points

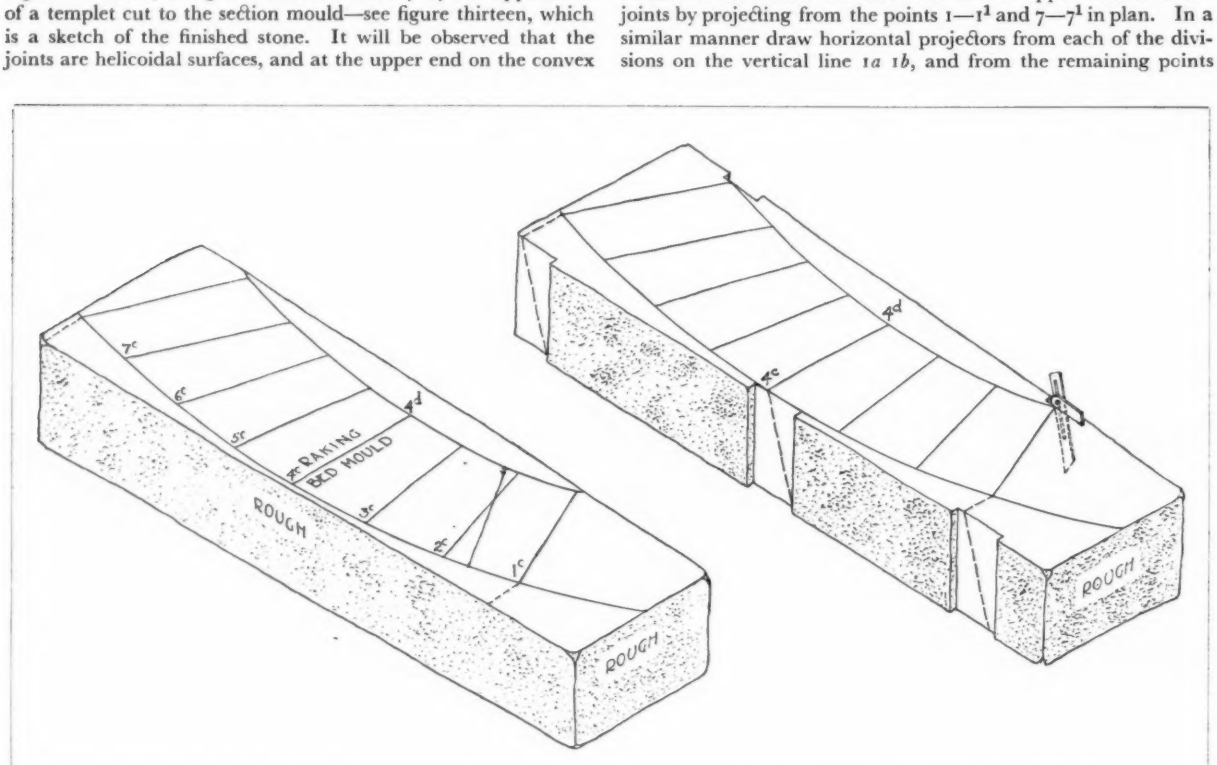



*Figure fourteen* *Figure fifteen*

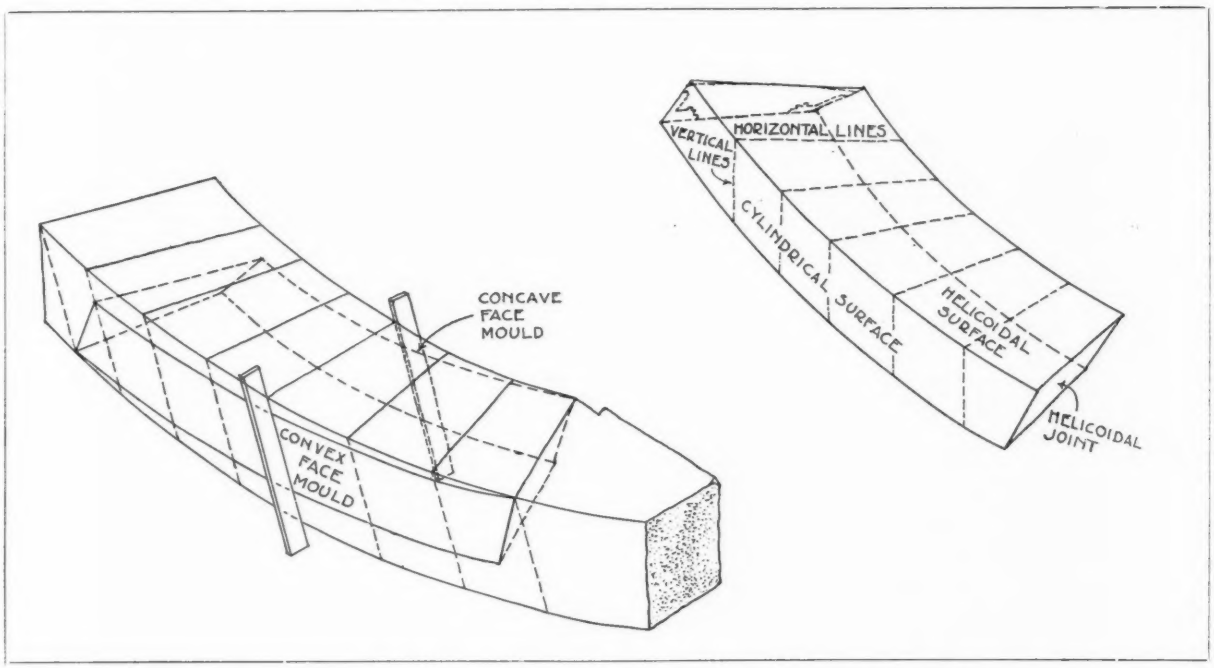



*Figure sixteen* *Figure seventeen*

2—2¹, 3—3¹, etc., in plan draw vertical projectors. Through the points 1—7 draw the helix in elevation, and similarly draw the helix on the concave side. These helical curves may be more accurately drawn by extending the arcs as shown by the broken lines in plan, dividing them into equal divisions. A corresponding number of equal divisions are set up as an extension of 1*a*—1*b*. from which horizontal projectors are drawn to meet the vertical projectors.

As a preliminary to drawing the elevation of the lower helicoidal surface, make a development of the convex and concave faces as shown at diagram H, figure two. From the point 1*b* make a stretch-out of the plan curve 1—7. Join 7*b* to 1*a*, and at right angles draw the joints, drawing also the under edge of the mould parallel and making the width 7 in. In a similar manner draw the corresponding stretch-out of the concave face.

Measure with the dividers the lengths of the vertical lines drawn from the uppermost corners of the moulds, as at X and Y, on the convex and concave moulds respectively. With dividers set to 7*b* X, transfer this dimension to all the vertical projectors, as at 7 X¹, measuring in each case from the helical curve 7—1, diagram J. A curve drawn through the points thus obtained will be exactly similar to the helical curve 7—1. The elevation of the joints can now be drawn by projecting from points 8 and 9, diagram H, to intersect the lower helical curve at the points 8*a* and 9*a*, diagram J, the helix being continued sufficiently at the upper end.

In a similar way, the lower helical curve is drawn on the concave side, the dividers being set to the point Y in diagram H. The joints on the concave side are obtained by projecting from the points 8¹ and 9¹, diagram H, giving the points 8*b* and 9*b* in the elevation. The elevation of the stone being now complete, the upper and lower raking beds are drawn, the lower one passing through the points 8*a* and 9*b*.

The length of the stone is determined by projecting a vertical line from 8*a* to cut the upper bed, and a vertical line from 1 to cut the lower bed, the ends of the stone being drawn at right angles to the inclination. Now complete the plan by adding the joints. With dividers set to P, diagram H, set off this dimension from points 1 and 7 in plan. Similarly with dimension, Q mark the position of the joints on the concave side in plan, and complete the joints, as at diagram G.

Projection of raking bed mould: From the points where the vertical projectors intersect the upper raking bed, draw short ordinates at right angles to the inclination, and on these set off dimensions corresponding to the distance of the points 1—7 and 1¹—7¹, measuring from the tangent B C in plan. The points thus obtained are indicated by 1*c*—7*c*, and 1*d*—7*d*, diagram K. Similarly, the extremities of the joints are projected. Through the points 1*c*—7*c* and 1*d*—7*d* draw the convex and concave curves. These are elliptical arcs, a quarter of each ellipse being indicated by dotted curves.

Begin by working the upper oblique bed as a surface of operation, and on it scribe the raking bed mould, keeping it well up to the upper end of the stone as shown in figure fourteen. In addition to the elliptical curves, transfer the radial lines to the stone, and also (from the extremities of the mould) draw lines parallel to 4*c*—4*d*. At each of these parallel lines, and at the extremities of the concave curve, sink a wide draft at right angles to the operation plane. On these drafts draw the inclined lines shown dotted in figure fifteen. A bevel set to this angle on the elevation will give the correct direction.

Now bring the stone to the thickness shown in the elevation, making the two beds parallel. Apply the raking bed mould on the lower bed, adjusting it to guide lines the positions of which were determined by the bevel previously applied.

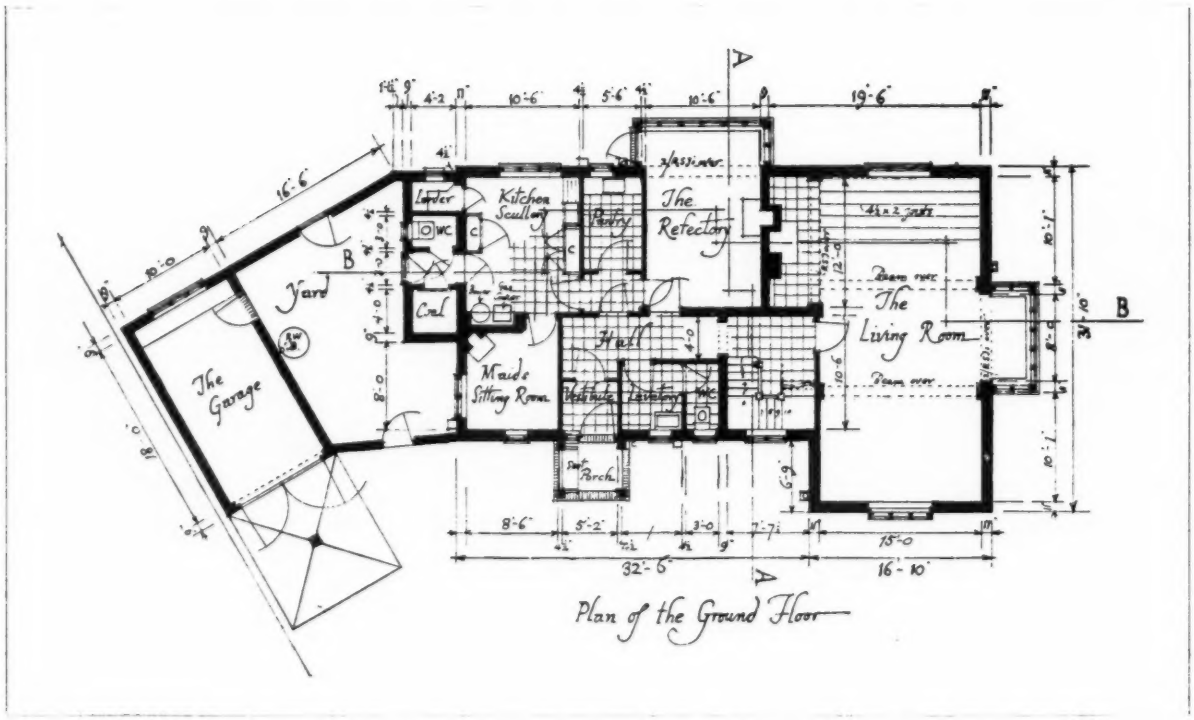
The cylindrical surfaces can now be worked by cutting straight drafts between the ends of the corresponding radial lines scribed on both beds—see figure sixteen—the flexible face moulds being now applied after careful adjustment, as shown.

Now "rough out" the upper and lower helicoidal surfaces and clean those surfaces by cutting straight drafts as indicated by the radial lines. These radial lines are generators of the helicoidal surfaces, and were the stone thus formed set up in its correct position each of those lines would be horizontal—see figure seventeen.

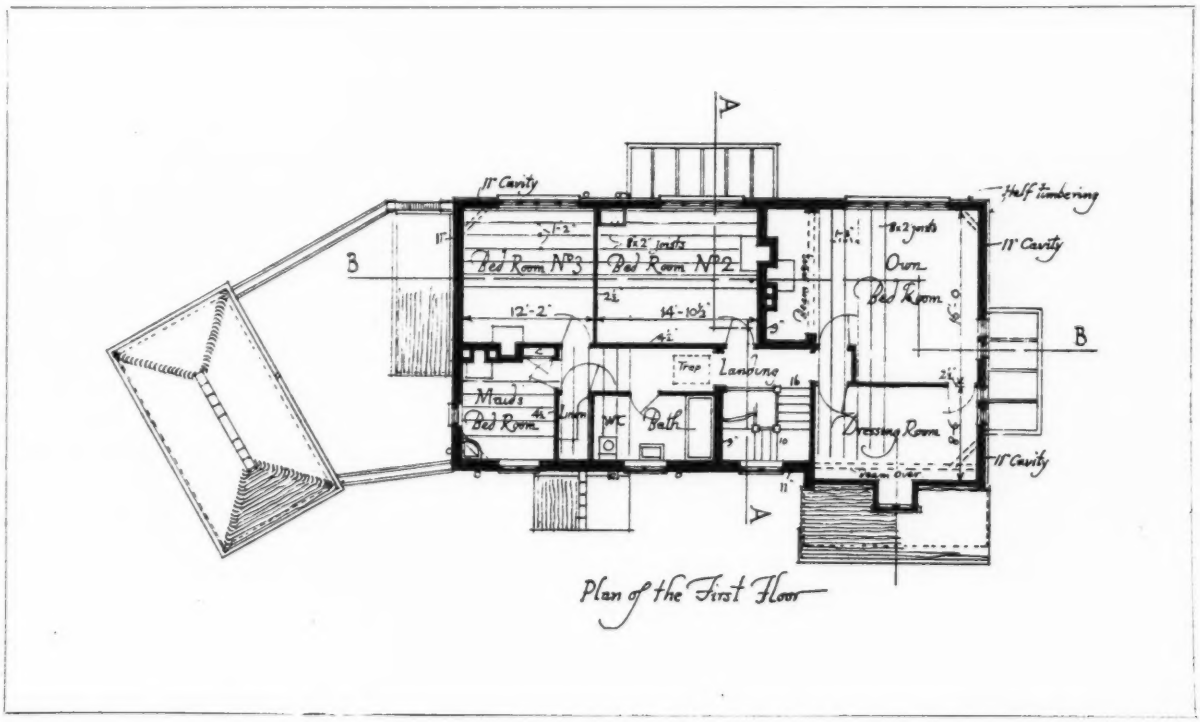
The joints—which are also helicoidal surfaces—are now cut to the lines given by the bed and face moulds, then on each joint the section mould of the coping is scribed, the mouldings and segmental upper surface being worked through to a finish as described for stone F, figure thirteen.

Diagram L, figure two, is a sketch of the coping stones D, shown in the elevation, diagram H, figure one.

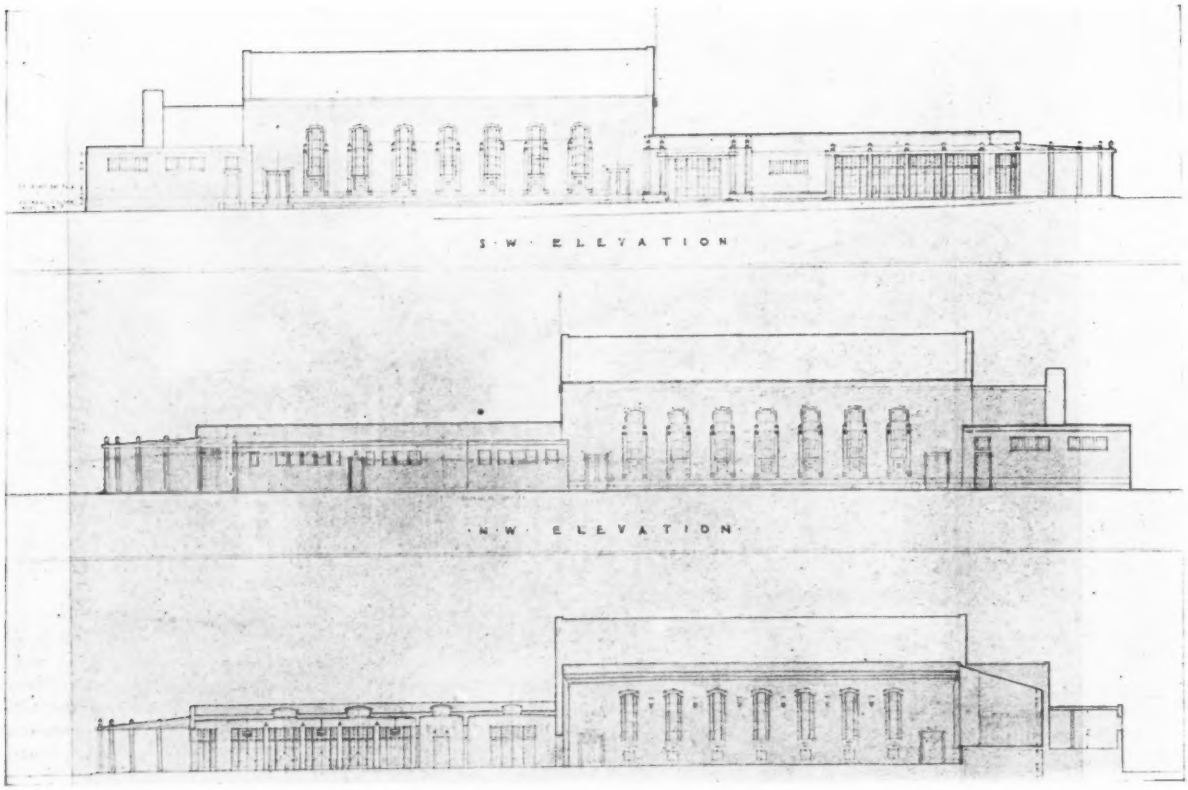
[ *Concluded* ]

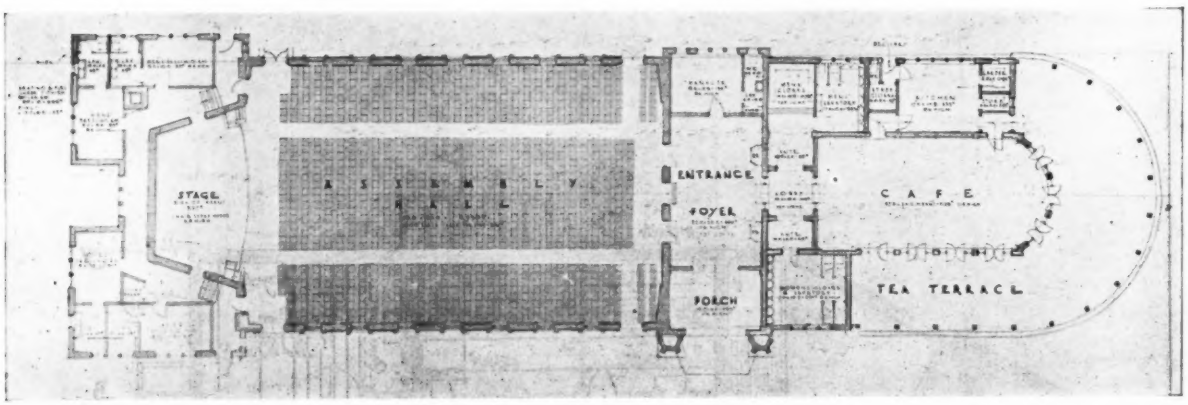


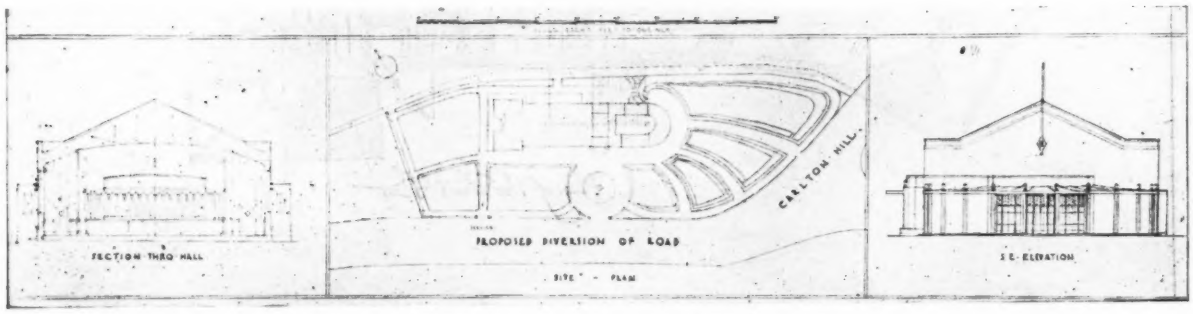

*Rustlings, Purley, Surrey. By Sydney Tatchell and Geoffrey C. Wilson.*
*Above, a view from the south west. Below, plan of the ground floor.*




*Rustlings, Purley, Surrey. By Sydney Tatchell and Geoffrey C. Wilson. Above, the garden (east) front. Below, plan of the first floor.*




*Exmouth Entertainment Pavilion Competition: The winning design. By E. C. P. Allen.*

# TOWN PLANNERS IN SCOTLAND

It would be difficult to find a more appropriate place than Edinburgh for a Town-Planning Institute conference. The delegates have the pleasure of viewing one of the most beautiful cities in the Empire, with a past of unrivalled romance, and are enabled to understand the cause of their appreciation; for Professor Patrick Geddes and his colleagues have already traced and explained the origins and development of the city, and the camera obscura in his outlook tower enables the present form of Edinburgh to be studied comprehensively and at ease. Students of history and lovers of romance turn first to the old town, where Professor Geddes has shown by practical example how its historic form can usefully be preserved by a process of cleansing and the removal of the cumbering excrescences of later days.

Town planners are, perhaps, even more interested in the "New Town," built from the design of James Craig after the competition held in 1765. Today, many town planners are making plans on paper; and some are fortunate enough to see certain of their projects, such as new roads and parks, actually realized, and some have seen their housing schemes or suburbs brought into being. All these are small pieces of a town plan, often so dispersed as to present no impression of a comprehensive scheme. Also many finely conceived roads are now flanked by buildings that frame them shabbily and far too continuously.

In the "New Town," Edinburgh, one sees a whole quarter, obviously laid out on a balanced plan and, moreover, a plan which provided not only a system of roads and pleasant squares, but which had a primary architectural conception. The consequence is that everywhere the eye is satisfied with the terraces and groups of stone buildings, which make a connected series of harmonious and proportioned pictures. The only disharmony is struck by a few modern intrusions. If "New Town," Edinburgh, followed the fashion of Bath, it is interesting to note that it continued the style consistently until the first years of the Victorian era, long after Bath had—temporarily, we hope—forsaken its gentlemanly habits.

The conference, which was admirably attended, was opened by Councillor Fergus Harris, convener of the City Town Planning Committee. It has been noted that previous conferences have all had a stimulating effect on the place in which they were held, and it is to be hoped that there will be the same result in Scotland, which (forgetting the admirable Craig and exporting its Geddes, Adams, and McLean) must be considered a backward country in the matter of town planning.

The first paper, entitled "The Growth of Edinburgh," was delivered by Mr. F. C. Mears, F.R.I.B.A., M.T.P.I. It was interestingly illustrated by lantern slides and proved an admirable introduction to the city. Mr. Mears first made clear the underlying geological factors and then traced the growth of the city—by a series of alternately active and slack periods—from earliest times. It is notable that the great spurt which produced "New Town" took place during and after the Napoleonic Wars, in times comparable, financially, with our own. A present-day problem to which he alluded was the regrettable tendency of the University to remove itself from the historic core of the city.

Councillor Fergus Harris brought the story up-to-date with an account of the present town-planning activities of the Corporation.

In the afternoon, a visit was paid to Old Edinburgh, under the guidance of Mr. Mears, and some of the splendid wild parks on the south side of the city were inspected. In the evening, delegates were most hospitably entertained at a civic reception in the City Chambers, by invitation of the Lord Provost and members of the City Corporation. The Civic Museum was thrown open for inspection, and delegates were particularly interested in James Craig's original plans for "New Town" and in many maps of the city at various stages in its history.

The conference, on the second day, was opened by Mr. G. D. Macniven, F.R.I.B.A., Principal Architect to the Scottish Board of Health, and responsible for town planning, with a paper entitled "Regional Planning and Rural Preservation." Mr. Macniven fully demonstrated his interest in the subject and the need for its practice, although he was clearly conscious that Scottish local authorities, with a few honourable exceptions, were not yet fully awake to its importance.

Ex-Bailie Whitson endorsed Mr. Macniven's conclusions, which were also supported by Mr. Whyte, of Mid-Lanark, and by the City Engineers of Glasgow and Edinburgh. The session was completed by an address from Mr. Ogilvy, Reader of Geography at the University, on the New York Region, illustrated by lantern slides.

The afternoon visit to the "New Town" and to the Forth Bridge was much appreciated by the delegates, and the conference closed with a dinner, at which a number of Scottish guests were entertained.

Town and regional planning were the topics of the toasts: the first, "The City of Edinburgh," was proposed by Mr. F. M. Elgood, vice-president; the second, "Town and Regional Planning," by Mr. G. L. Pepler, past-president. Mr. Elgood paid tribute to many beautiful features of the city; he had noticed that necessary clearances were in hand, and he stressed the importance of dealing with all such matters according to a definite and comprehensive plan. Many of the old tenement buildings were beautiful in appearance and therefore should be preserved, but a use other than housing must be found for them. Mr. Pepler referred to the great heritage of beauty which the present generation of Scotsmen enjoyed, and pointed out that it could only be preserved if taken care of according to a definite policy and plan based on a thorough survey. Referring to the discussions which had taken place, he quoted examples illustrating the fact that town and regional planning were not the fads of æsthetics, but were essential to economy. Councillor Fergus Harris, of Edinburgh, and Baillie Burt, of Glasgow, replied to the toasts in speeches, in which abundant humour was happily clothed in earnestness of purpose.

M. P.

# COMPETITION NEWS

*R.I.B.A. Aerodrome Competition*

The jury for the R.I.B.A. competition for a design for an aerodrome announce that as the result of the preliminary stage of the competition, the following ten competitors have been selected to take part in the final competition:

Laurence Williams; D. H. McMorran (Bartlett School of Architecture, University of London); L. C. S. Farmer (School of Architecture, The Polytechnic, Regent Street, London, W.1); C. A. Minoprio (School of Architecture, University of Liverpool); F. S. Fry; N. B. Hillier (School of Architecture, The Architectural Association, London); M. Hartland Thomas (R. W. A. School of Architecture, Bristol); Miss Ruth Ellis (School of Architecture, The Architectural Association, London); W. R. B. Bertram (Glasgow School of Architecture); F. W. Rowbotham.

The final competition, the prizes for which have been given by the directors of the Gloster Aircraft Company, Ltd., and Messrs. H. H. Martyn & Co., Ltd., will consist of a design for an imaginative scheme for a London aircraft terminus suitable to the supposed requirements of air traffic fifteen years hence. The general object of the competition is to stimulate the imagination of competitors and to assist them to visualize the influence which aerial development will have upon the design of a first-class aerial terminus with every accommodation for personnel and machines, and with every equipment and comfort for passengers.

The jury is composed as follows: Sir Sefton Brancker, K.C.B.; Mr. C. Cowles-Voysey; Mr. E. Vincent Harris; Sir Edwin Lutyens, R.A.; Major R. Mayo (consulting engineer, Imperial Airways, Ltd.); Mr. T. S. Tait; Mr. Maurice E. Webb; Mr. G. E. Woods-Humphrey (general manager, Imperial Airways, Ltd.).

# CORRESPONDENCE

## THE SOUTHAMPTON COMPETITION

*To the Editor of* THE ARCHITECTS' JOURNAL

SIR,—With reference to Mr. H. P. Cart de Lafontaine's article on the Southampton Town Hall competition, we feel we certainly were "lucky," as he suggests, in obtaining third place—but only in the sense of having had "beginner's luck," this being our first attempt at competition work.

At the same time we would suggest, with all due respect to Mr. Cart de Lafontaine, that such criticism is not altogether in good taste.

There would seem to be a moral in the awards of the assessor, in that he has selected three logical schemes to the exclusion of anything fantastic. LYONS AND NORTH

*To the Editor of* THE ARCHITECTS' JOURNAL

SIR,—Astragal and Mr. Cart de Lafontaine both raise the question as to the method which should be employed by assessors in allotting second and third premiums; but surely there can only be one right and logical process. After the winning scheme has been selected this can be completely ignored, and the scheme receiving second premium must be that which would have been placed first had the winner never entered. The question of similarity between the several premiated designs seems to me completely extraneous. GRAHAM R. DAWBARN

*To the Editor of* THE ARCHITECTS' JOURNAL

SIR,—I have read with interest Mr. Cart de Lafontaine's review of the competition for new municipal buildings, etc., at Southampton. I did not submit a design in this competition, so that anything I write is entirely impersonal, and deals with principles only.

I have not had the opportunity of seeing the designs, except those which have been published, but I certainly agree that the scheme awarded the first place is a very fine one, which I hope will be carried out in its entirety. Your reviewer thinks that this competition should mark a turning point in the history of open competitions, and I trust that this may be so. This competition, taken along with several recent ones, seems to me to open up an aspect of the competition system which gives an opportunity for a further advance now being made.

The result at Southampton seems to have been very successful, amply justifying the method employed, notwithstanding the fact that only $\frac{1}{16}$ in. scale drawings, simply finished, were asked for, and that no detail drawings were required. The review rightly stresses the decisive part played by the $\frac{1}{500}$ scale block plan. It is strikingly evident that where the grouping of buildings is involved, the best solution lies clearly in the layout of the scheme, defining the lines of approach to the problem, made by the various competitors.

What impresses one, however, is the vast expenditure of time and useless labour, with attendant expenses, in perfecting schemes doomed to failure because they were wrong from their very inception. There is no doubt but that for a competition of this type and size, where a group of buildings to serve different purposes on an open site is required, a preliminary competition should be held for the layout. If the drawings were made to a $\frac{1}{32}$ in. scale, it would be quite sufficient, and for large schemes a still smaller scale might be adopted. A strictly limited number of sections, and one or two elevations, to a scale of not more than $\frac{1}{16}$ in., would be quite enough to enable an assessor to judge the character of the design, as well as the quality of the plan. Pencil sketches only should be admitted at the first stage, with the minimum of labour.

There is no need for having competitions in two stages for comparatively small buildings, or those which are simple in their outlines, but all competitions for designs of large buildings, especially those costing over £250,000, and all those which involve the grouping of buildings, should, in my opinion, be in two stages, as otherwise the architectural profession is involved in an enormous amount of unnecessary and unprofitable labour. I know that two-stage competitions are often avoided, because they take longer time, and are more costly, but these objections could be greatly reduced under proper administration. If the amount of labour were reduced at the first stage, time might be saved there, and the number of designs to be passed into the final round should be strictly limited, or otherwise, the premiums should be confined to the first three or four only, thus limiting the expense to the promoters, as well as to the competitors. I am strongly of the opinion that if such a course were adopted, competitions would be productive of much better results, as the attention of competitors would be directed, perforce, to the most important things—the bones of the plan, and the most essential demands of the problem. Competitions would also be much more attractive, as the first stage could be entered without undue expenditure of time and money, while the best schemes, as selected by the assessor, could then be carried to a higher degree of excellence by competitors who would know that they were on right lines, and would therefore proceed with more confidence and enthusiasm.

I consider that both assessors and competing architects are requiring to have their attention and efforts concentrated on such vital considerations as the efficiency and beauty of a fine general scheme, the necessity for convenience of circulation, and its daily saving of valuable time, the need for ease of administration and supervision, more direct attention to modern progress in hygiene, especially concerning lighting, aspect, circulation of air, and all that makes buildings pleasant and healthy for their occupants.

In a still greater scientific regulation of competitions there undoubtedly lies the opportunity today of stimulating an advance in the science and technique of planning, and in the evolution of modern design. CALLICRATES

## SAFETY IN BUILDING

*To the Editor of* THE ARCHITECTS' JOURNAL

SIR,—To save the lives of workmen engaged on the erection of buildings, I would like to suggest that hammocks be slung under each platform of timber. The hammocks should jut out a few feet beyond the platform, from which, if possible, they should be erected independently. H. M. BERRY

## PROBATIONERSHIP OF THE R.I.B.A.

*To the Editor of* THE ARCHITECTS' JOURNAL

SIR,—The Council of the R.I.B.A. desire to call attention to the standard of general education required for the Probationership of the R.I.B.A. Except in very special cases, a headmaster's certificate on the official form will not be accepted after December 31, 1928, and no one will be registered as a Probationer unless he or she has passed one of the recognized public examinations in the following subjects: English composition; elementary mathematics (arithmetic, algebra, geometry); mechanics or physics or high mathematics or chemistry or physics-and-chemistry; history or geography; one language other than English.

Drawing or art is now accepted: 1: as an alternative to a subject from the group of subjects comprising mechanics or physics or higher mathematics or chemistry or physics-and-chemistry; or 2: as an alternative to one of the subjects from the group history or geography; or 3: as an alternative subject to one language other than English.

Candidates who submit a certificate of having passed one of the recognized public examinations, but who do not include drawing or art as one of their subjects, are required to submit in support of their applications drawings in accordance with the regulation already laid down.

The following are the recognized examinations:

The Entrance Examination of Schools of Architecture recognized by the R.I.B.A. for the purpose of exemption from its Examinations; The Responsions of the University of Oxford; The Previous Examination of the University of Cambridge; The Matriculation Examination at any University in the British Empire; The School Certificate Examination of the Oxford and Cambridge Schools Examination Board; The School Certificate Examination of the Oxford Delegacy for Local Examinations; The School Certificates Examination of the Cambridge Local Examinations Syndicate; The School Certificate

Examination of the University of Bristol; The School Certificate Examination of the University of Durham; The General School Examination of the University of London; The School Certificate Examination of the Northern Universities Joint Matriculation Board; The School Certificate Examination of the Central Welsh Board; The Higher Certificate Examination of the Oxford and Cambridge Schools Examination Board; The Higher School Certificate Examination of the Oxford Delegacy for Local Examinations; The Higher School Certificate Examination of the Cambridge Local Examinations Syndicate; The Higher School Certificate Examination of the University of Bristol; The Higher Certificate Examination of the University of Durham; The Higher School Certificate Examination of the University of London; The Higher School Certificate Examination of the Northern Universities Joint Matriculation Board; The Higher Certificate Examination of the Central Welsh Board; The Leaving Certificate Examination, Scottish Education Department; The Senior Certificate Examination of the Ministry of Education, Northern Ireland; The Examination for the First-class Certificate of the College of Preceptors; The School Leaving Certificates of the following Universities: The University of Aligarh, The University of Allahabad, The Benares Hindu University, The University of Bombay, The University of Calcutta, The University of Decca, The University of Delhi, The University of Lucknow, The University of Mysore, The University of Nagpur, The Osmania University, Hyderabad (Deccan), The University of Patna, The University of Punjab, The University of Rangoon; or such other Examinations as may be satisfactory to the Board.

The Junior (Honours) Local Examinations under the authority of any university in the British Empire will be accepted until December 31, 1928.

IAN MACALISTER, *Secretary*

# LAW REPORTS

### RIGHT OF WAY AND ANCIENT LIGHT DISPUTE

*Coutts & Co. v. Charles Turner and Sons, Ltd. Chancery Division. Before Mr. Justice Eve*

This action concerned the alleged obstruction of a passage and the access of light to certain windows on the ground floor of a building in Bloomsbury.

The plaintiffs were Messrs. Coutts & Co., the bankers, of 440 Strand, and the defendants were Messrs. Charles Turner & Co., Ltd., of Broad Street, Bloomsbury.

Plaintiffs asked for an injunction to restrain the defendants from hindering or obstructing the free passage to the plaintiffs or their under-lessees of 15 and 17 Grape Street, Bloomsbury, over and along a passage-way adjoining those premises and leading to Broad Street. Plaintiffs also asked for an order on defendants to pull down iron plates placed by them over a doorway leading from 15 Grape Street into the passage-way and other obstructions placed there, and an injunction to restrain defendants from obstructing the access of light to windows on the ground floor of 17 Grape Street which formerly came to windows of the old buildings of the predecessors in title of the plaintiffs known as Tanqueray's Distillery or the Bloomsbury Distillery.

Defendants, by their defence, claimed the right to block up the passage-way over which the plaintiffs alleged that they had a right of way and to obstruct the access of light by means of the iron screen.

Mr. Topham, K.C., and Mr. H. A. Rose appeared for the plaintiffs, and Mr. Bennett, K.C., and Mr. Graham Mould for the defendants.

For the plaintiffs a number of experts gave evidence, including Mr. Robt. James Worley, architect and surveyor, Mr. D. M. Waite, and Mr. A. S. Ackerman, consulting engineer.

Mr. Bennett, for the defendants, contended that the soil in the passage-way was now vested in the defendants, and that the plaintiffs had abandoned any easement of light they had.

Mr. John Percy Waldram, the daylight illumination expert, gave evidence for the defendants.

His lordship, in giving judgment, said he was of opinion that the ownership of the soil in the passage-way had been established to be in a family called Wicks, and through them in the defendants, but it was impossible for them to deny that plaintiffs had a right of way over the passage-way to the two doors in question. He granted an injunction to restrain defendants from interfering with plaintiffs' access to those doors. Plaintiffs could remove the obstructions themselves, but he had no doubt defendants would give effect to what the justice of the case demanded so far as the claim to a right of way was concerned. With regard to the question of access of light he held that there had been no abandonment of any right to light over defendants' premises in respect of those ancient lights. Plaintiffs, however, would enjoy a considerably larger amount of light than had been abstracted by the complete obscuration of the old lights. The action failed as far as it relied on the ground of interference with ancient lights. The proper order would be to give plaintiffs the injunction as to the right of way, with costs except in so far as they had been increased by the claim in respect of light which would be paid by the plaintiffs, and there would be the usual set-off.

### DISPUTE UNDER THE LONDON BUILDING ACT

*Cooper and W. Cooper, Ltd. v. David Greig, Ltd. Chancery Division. Before Mr. Justice Maugham*

This action arose out of a dispute over a wall dividing the premises of the plaintiffs from those of the defendants at Electric Avenue, Brixton.

The plaintiffs sought a mandatory order on the defendants to fill in and remove certain windows which they had recently opened in the wall and to rebuild a pier or piers which they had destroyed. Plaintiffs also asked for an injunction to restrain the defendants from making further openings or further pulling down the wall. The question in dispute was as to the rights of the plaintiffs and the defendants in the wall having regard to its history.

Mr. Spens, K.C., argued the case for the plaintiffs, and Mr. Vaizey, K.C., for the defendants.

His lordship, in giving judgment, said he came to the conclusion that the wall was constructed upon the property of the defendants' predecessors and piers on property belonging to the predecessors of the plaintiffs. He thought the wall had been and was a party wall within the meaning of the London Building Act, 1894, and that the defendants were wrong both in making the openings in the wall and in removing the piers. Accordingly, there must be a mandatory injunction ordering the defendants to brick up the openings, rebuild the piers, and restore the wall to the state it was in before. As the rights of the parties were now defined he did not think there was any need for an injunction.

# A NEW SCOTTISH BANK

Following are the names of the contractors for the Union Bank of Scotland, Ltd., Glasgow, illustrated on pages 498 to 505. General contractors, Thaw and Campbell, who were also responsible for the demolition, excavation, and stonework. Sub-contractors: Limmer and Trinidad Lake Asphalt Co., Ltd., asphalt; Melville Dundas and Whitson, reinforced concrete; Heworth Burn, Tate, Brown & Co., Ltd., stone; Redpath Brown & Co., Ltd., structural steel; Diespeker & Co., tiles; Building and Insulating Material Co., Ltd., Moler and Bi-mol blocks; Wm. Meikle and Son, Ltd., glass; Pennycock Patent Glazing Co., Ltd., Glasgow, patent glazing; Waterex Co., Ltd., Waterex waterproofing material; Ashwell and Nesbit, Ltd., central heating and ventilating; Wm. Kemp & Co., Ltd., grates; Allan Kennedy, Stark & Co., electric wiring; Russell & Co., electric light fixtures; Wm. Anderson, Ltd., plumbing; Shanks & Co., Ltd., sanitary fittings; Crittall Manufacturing Co., casements; Dictograph Telephones, Ltd., telephones; Chatwood Safe Co., Ltd., fireproof doors; George Rome & Co., Ltd., plaster; Bromsgrove Guild, Ltd., Crittall Manufacturing Co., H. H. Martyn & Co., Ltd., metalwork; John Cochrane, joinery; Farmer and Brindley, Ltd., marble; Waygood-Otis, Ltd., lifts; Dykes Bros., clocks; Wylie and Lochhead, Ltd., hardwood finishings in banking hall and principal rooms, and rubber flooring; Barr & Co., vacuum cleaning plant; Rowan and Boden, linoleum floor coverings; V. T. Bowie Fisher & Co., painter work; Roneo, Ltd., a contract; Korkoid Decorative Floors, Korkoid tiling; Bromsgrove Guild, Ltd., were responsible for the cast bronze window breasts and for the lift enclosures.

# TRADE NOTES

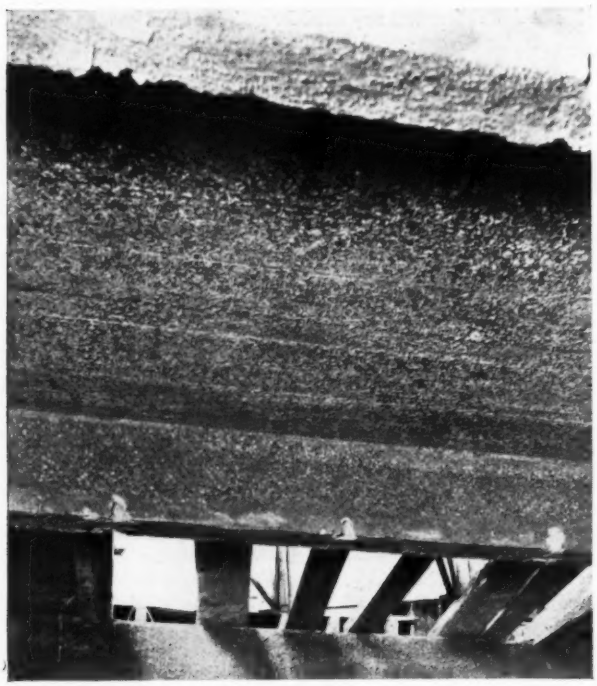
The directors of Messrs. Bell's United Asbestos Co., Ltd., have declared an interim dividend on the ordinary shares of 1s. per share, being 5 per cent. (actual) less income tax, on account of the current year. The dividend will be paid on October 15 to shareholders on the register on September 29, and the ordinary share transfer books will be closed from October 1 to 13.

Two orders, each believed to be a record, have been placed to secure freedom of light and absence of noise at the new £1,000,000 headquarters of Imperial Chemical Industries, Ltd., in Millbank, London, which the advance guard of the staff have now entered. To ensure the free passages of the sun's ultra-violet rays to the workers at their desks the windows are equipped with 30,000 sq. ft. of Vitaglass, and the two and a-half miles of corridors are laid with rubber tiling specially executed by Macinlop, Ltd., to the designs of Sir Frank Baines.

The motor travelling caravan of the National Radiator Company, Ltd., which contains a working Ideal Cookanheat installation, will give demonstrations as follows: October 11 and 12, outside premises of Messrs. Morgan and Son, Ltd., London Road, Hounslow; October 15 and 16, outside "Packhorse and Talbot" public-house, High Road, Chiswick; October 17 and 18, outside Dog and Fox Hotel, Wimbledon Hill.

The output of Lefarge extra white cement now exceeds 1,200,000 tons annually. This cement is specially useful for decorative finishes, and is claimed, when used with appropriately careful workmanship, good sands and aggregates, to be free from crazing. It also has many other uses, among them being the making of cast stone, flooring, tiles, and stucco rendering, and it is said to be particularly suitable for the jointing and pointing of delicate stones. It is claimed that the cement attains great strength with age, that there is no cracking or expansion in the finished work, and that it retains its original whiteness permanently.

Until recently architects all over the world encountered two difficult problems in connection with concrete construction. One was how best to remove the skin of grey Portland cement, the presence of which gave a patchy and monotonous appearance to many concrete surfaces. The other was how best to provide a desirable base to the surface for the application of a cement-concrete or other plaster rendering.



*A floor in Marshall Roberts' new premises, Camden Town, after treatment with Redalon.*

*A concrete floor treated with Redalon being brushed after removal of the shuttering.*

The solution of the first problem proved to be the solution of the other. At first hacking was resorted to, but Redalon liquid is now the vogue and is being specified by the foremost architects in this country. This liquid is of two grades. One has been devised to expose the aggregate, and thus render bush hammering or other surface treatment unnecessary: the other to obviate the hacking of the concrete to provide a surface to which a cement-concrete or other plaster rendering can be easily and properly bonded. In use the liquid is simply painted on the shuttering, either before or after it is erected, whichever method is found to be the most convenient. It is used on either timber or steel centering, and as soon as it is dry, about a quarter of an hour after application, the concrete is poured. On striking the shuttering, even if it has been in position several weeks, brushing the concrete with a wire brush, it is claimed, will remove the outer skin, exposing the aggregate to the depth of approximately one-eighth of an inch. Brushing the concrete must be done the same day as striking the shuttering, otherwise the surface, it is said, will set hard owing to the fact that the liquid only retards the setting of the concrete as long as the shuttering is in position, but does not kill the action of the cement. At the same time the shuttering should be brushed, leaving it clean and ready for further use.

One of the accompanying photographs shows the underside of one of the floors at Messrs. Marshall Roberts' new premises in Camden Town after treatment with the liquid. The architect for this work is Mr. M. K. Matthews, and the contractors Messrs. Bovis (1928), Ltd. Another illustration shows the concrete being brushed after removal of the shuttering. Among the many other important buildings in the construction of which the liquid is being used are the following: New studios for the British Instructional Films, Welwyn Garden City; the Midland Bank, Poultry; London Electric Railway new offices, St. James's Park; alterations to Grand Hotel, Charing Cross; and extensions to the Cornwall Press, Stamford Street, S.E. The main advantages claimed for the architects are speed and efficiency; and for the contractors, economy. Besides saving the actual cost of hacking, the use of this liquid, it is claimed, saves scraping the shuttering.

# READERS' QUERIES

### FEES PAYABLE AS ARCHITECT

*Doubtful writes: "Plans and specifications were prepared and contracts entered into for two bungalows, clients 'A' and 'B.' When the work was three-quarter finished in the case of 'A,' and half-finished in case 'B,' the contractor could not proceed any farther owing to money difficulties and pressure from his creditors. Subsequently an arrangement was made between the contractor and his creditors to pay a composition without forcing him into bankruptcy. My clients were approached and asked if they would allow the contractor to complete the work, the clients paying the weekly wage for the workmen and all necessary materials. This was done and the work completed, a balance being due to the contractor in the case of 'A' and a debit in the case of 'B.' As architect for the work a considerable amount of additional work had to be carried out in the shape of extra supervision, checking time sheets and materials and interviews with solicitors, and for this work a claim has been lodged against the balance due the contractor as my clients object to pay any additional fee. Am I in order in pressing a claim against the contractor for my fees, or should I obtain my additional fees from the client and let him deduct the amount from the final certificate or sue the contractor?"*

In this case it appears from the facts that there were contracts between the client and the building contractor to erect certain premises. In the events which happened these contracts were rescinded, and new contracts entered into between the parties.

The question is whether you can charge an additional fee for the extra work you have had to do, which has been caused thereby, and if the answer be yea, who is liable to pay such additional remuneration? It must be borne in mind at the outset that the contracts between you and your client are distinct from contracts between your client and the building contractor: neither the parties thereto, nor the considerations are the same.

For the sake of clarity it is proposed to analyse the position. Originally you were engaged by your client to superintend the carrying out of the prior contracts, the considerations for which were expressed to be a certain remuneration. The prior contracts having terminated, the latter contracts were entered into. So far as you were concerned you had no contract with your client to superintend these latter contracts on his behalf, and you could have declined to act in the matter. In my view you were entitled to sue for damages or a *quantum meruit* when your client failed to give you the work to superintend which was caused by the rescission of the prior contracts between your client and the building contractor. It appears to me, however, from the conduct of the parties that fresh contracts were entered into between yourself and your client to superintend the latter contracts between himself and the building contractor. It does not appear that any remuneration was agreed between you and your client for the fresh contracts between you. You have done the work at his request, and I am clearly of opinion that you are entitled to remuneration for the work and labour done, plans and materials supplied.

The remaining question for consideration is whether your client is liable to you, or whether the liability must be borne by the building contractor. Except in regard to the granting or withholding of the final certificate when you act in a quasi-judicial character [*Chambers* v. *Goldthorpe* (1901) 1 K.B. 624 commented upon in *Wisbech Rural Council* v. *Ward* (1928) 1 K.B. 1] you are under no duty towards the building contractor, you are not engaged by him, and in my view you are not entitled to recover your fees from him, as there is no privity of contract between yourself and him to engage you.

For these reasons I am clearly of opinion that you should sue your client. It may be found that from the proper construction of the original contracts between yourself and your client that they may contain certain stipulations which may affect the latter contracts between you and your client. The terms of these contracts not being before me, these views are expressed subject to the true construction of the contracts, and to any custom in your profession throwing the liability for your remuneration upon the building contractor.

E. F. I.

### REPOINTING A CHURCH

*R. H. writes: "A large church built in stonework with very fine joints has to be repointed. Which is the best mortar to use, and is there any way of getting it into the fine joints which are open quite 12 in. deep in quite a lot of places? In Professor Laurie's address to the R.I.B.A. on Stone Preservation, 'Silicon Ester' is recommended for the treatment of decayed stone. What is this material, how can it be procured, and how should it be used?"*

A good mortar to use for pointing a very fine joint as referred to in the question would be one made with four parts of clean and rather fine sand mixed with one part of "hydrated lime." Hydrated lime can be obtained from Thorolds Pure Lime and Hydrate Co., Ogborne St. George, Marlborough, and other firms. The filling of the joints will depend very largely on the skill of the mason employed, but I should expect to find that the ordinary method of pressing the mortar into the joints with the edge of the trowel would prove most satisfactory. It may perhaps be that fine slate could be used at the same time.

With regard to the second half of the question: Silicon Ester is a liquid prepared to harden the surface of stone work and it is to be obtained from Messrs. Albright and Wilson, Ltd., of Oldbury, near Birmingham. In using this material it is advisable to take the advice of Mr. A. R. Warnes of 17 Globe Street, Borough, London. The firm also provides a mortar specially prepared with Silicon Ester as a setting medium, again this material should only be used after taking Mr. Warnes' advice.

Hydrated lime is to be preferred to Portland cement because it will work more easily and will set well. If Portland cement mortar is used it would have to be mixed with a greater proportion of cement to obtain a mortar that will work as easily in fine joints; indeed, the proportion would be stronger than is usually thought good by those most accustomed to repair old buildings. Sometimes this difficulty is overcome by using a "compo" mortar as follows: one part of lime and six or seven of sand and adding one part of Portland cement to six or seven of this mortar immediately before use. But for the joints described the hydrated lime mortar could certainly be used with success in the building described.

A. R. P.

### HOT WATER SYSTEM

*W. E. writes: "In a small house it is proposed to run 1 in. flow and return pipes from a hot-water cistern in the hot closet to a boiler behind the kitchen fireplace, and to continue the circulation pipes to a second boiler behind the living-room fireplace. Do you think there is any likelihood of trouble arising from false circulation when either or both fires are in use?"*

Any complication of pipes brings in some risk of false circulation, and the addition of a flow and return from the kitchen boiler to a boiler in the living-room fireplace might set up a short circuit round and round the two boilers. If the experiment is made, the flow-pipe from the second boiler should be directed to discharge into the other in such a manner that movement will be stimulated in the direction of the main flow to the tank, and the return to the kitchen boiler must be directed to encourage movement in the direction of the living-room boiler. The openings of the pipes must be arranged exactly in line if good results are to be hoped for.

A more promising arrangement would be to run separate flow and return pipes from each boiler to the tank, which would be placed just above the kitchen mantelpiece to be near both boilers. The pipes should be lagged to prevent loss of heat, and, unless the tank heat is useful in a kitchen cupboard for drying kitchen towels, etc., it should be enclosed also. The hot closet is best warmed by means of a coil, which does not take up so much valuable space as a tank in the linen store. In any event, the spare boiler and spare pipes act like radiators, and slow down the circulation when only one fire is alight, and lagging is required to minimize this action; 1½ in. pipes are preferable to 1 in. Each boiler needs it own safety valve.

W. H.

# THE WEEK'S BUILDING NEWS

The GLOSSOP Corporation has decided to proceed immediately with the reconstruction of the Coronation bridge.

*

The LOWESTOFT Corporation has decided to erect another twelve houses on the Kirkley Garden estate.

*

Plans passed by the LOWESTOFT Corporation: House, Park estate, Oulton Broad, for Mr. J. R. Fuller; brick store, Suffolk Road, for Messrs. Slater and Barnard; factory, School Road, for Alliance Artificial Silk, Ltd.; classroom, St. George's Hall, St. George's Road, for trustees; alterations, 229 London Road, for Barclays Bank, Ltd.; additional petrol store, Southwell Road, for Sealand Petroleum Co.; two houses, Royal Avenue, for Mr. W. A. Newson; shop and house, London Road South, for Mr. C. E. Gray; two houses, Cormet Road, for Mr. A. E. Ingles; dairy, School Road, for Mr. C. T. Minister; builder's store, The Avenue, for Mr. A. Yellop; two houses, Laurel Road, for Mr. T. H. Lambert.

*

Plans passed by the ILFORD Corporation: Ten houses, Park View Gardens, for Mr. T. Anders; four houses, Woodford Avenue, for Mr. A. Smith; forty-one houses, Otley Drive, etc., for Mr. J. Aldridge; ninety-two garages, Lynn Road, for Mr. F. C. Chillingworth; twelve houses, Brancaster Road, for Messrs. Baskett and Brown; extensions, oxygen compression house, Uphall Works, Uphall Road, for Messrs. Howards and Sons, Ltd.; off-licence, 176 Gantshill Crescent, for Mr. F. M. Kirby; four houses, Hamilton Avenue, for Mr. H. W. Christophers; four houses, Ashurst Drive, for Mr. H. Smith; eight houses, Hamilton Avenue, for Mr. W. Wakeling; three bungalows, Parkway, for Messrs. J. W. Moore and Son; 102 houses, Castle Drive, etc., for Messrs. S. Robinson, Ltd.; twenty-six houses, Albermarle Gardens, for Suburban Developments (London), Ltd.; thirteen houses, Redbridge Lane, for Mr. T. B. Goodwin; alterations and additions, 106 High Road, for Mr. J. W. Lohden; fourteen houses, Chichester Gardens, etc., for Mr. A. P. Griggs; warehouse and lock-up shops, Ilford Lane, for Messrs. Pickford's, Ltd.; twenty-three garages, rear 700 Green Lane, for Mr. E. Meredith; four houses, Beehive Lane, for Mr. R. Banks-Martin; thirty-two houses, Babbacombe Gardens, for Messrs. Brand and White, Ltd.; church hall, Etherbert Gardens, for Messrs. John Harrison & Co.; eight houses, Beaumont Gardens, for Mr. F. Russell.

*

Plans passed by the BECKENHAM U.D.C.: Ninety houses, Atyre Way and Hill Crest View; six houses, Groveland Road; thirty-five houses, Broomfield Road; twelve flats, Kingshall Road; six shops, Croydon Road and Elmers End Road.

The BECKENHAM U.D.C., at the request of the Ministry of Health, has deferred a proposal for the erection of a maternity hospital.

*

The PAIGNTON U.D.C. has obtained sanction to grant another fifty housing subsidies.

*

Plans passed by the PAIGNTON U.D.C.: Two flats, Morin Road, for Mr. F. G. Burman; seven houses, Stoke Road, for Mr. W. G. Tancock; six flats, Winner Street, for Mr. W. J. R. James; two houses, Oldway Road, for Mr. W. H. Toms; eight houses, Queen's Road, for Messrs. C. and R. E. Drew; four houses, Cedar Road, for Messrs. Diggines Bros.; two shops, Torquay Road, for Mr. F. Budd; twenty houses, Stansfield Avenue, for Mr. A. Jonas; four houses, Maidenway Lane, for Mr. L. Veale; nine shops, St. Michael's Road, for Messrs. C. and R. E. Drew; house and four garages, Colin Road, for Mr. C. T. Goodacre; garages and stores, rear Littlegate Road, for Mr. F. H. Swaffin; sports buildings, Old Dartmouth Road, for South Devon Blues Sports Club.

*

Plans passed by the WIMBLEDON Corporation: Six shops and flats, Durnsford Road, for Messrs. G. W. Beattie, Ltd.; house, Ernle Road, for Mr. A. J. Styles; house, Drax Avenue, for Mr. W. H. Sharp; house, Dora Road, for Mr. E. C. Boon; workshop, 16 Belvedere Grove, for Messrs. Gibbard and Sons, Ltd.; alterations, Pearks' Stores, 124 Merton High Road, for Messrs. J. Cannon and Son; house, Dunstall Road, for Mr. S. Derwent; two houses, Bathgate Road, for Mr. J. S. Brocklesby; house, Griffiths Road, for Mr. E. A. Bacon; billiard room, etc., 25 Arthur Road, for Mr. J. Carlisle; billiard hall, Haydons Road, for Messrs. Jas. Burges and Sons, Ltd.; extensions, factory of Hugh Stevenson Ltd., in Riverside Road, for Messrs. Jas. Burges, Ltd.; six houses, Merton Hall Gardens estate, for Messrs. H. Coombs and Sons; workshop, 139 Merton Road, for Messrs. T. W. Palmer & Co.; five houses, Grove Road, for Mr. W. L. Walker.

*

Messrs. J. W. Brooke & Co., Ltd., of Adrian Works, LOWESTOFT, have in contemplation a scheme for alterations and extensions at their boat-building premises.

*

The LOWESTOFT Corporation has referred to committee a suggestion for the provision of a smallpox hospital.

*

Plans passed by the POPLAR B.C.: Buildings, 266-8 Manchester Road, for London Co-operative Society, Ltd.; additions, 14 Oriental Street, for Messrs. Frost and Hollington; additions, 43 Chrisp Street, for Mr. W. Simms; buildings, 726 Old Ford Road, for Messrs. Andrews and Peascod.

The BARKING TOWN U.D.C. has arranged terms with the owner of the Old Wesleyan Church site in East Street for a highway widening in connection with a proposal for the erection of a cinema.

*

Plans passed by the BARKING TOWN U.D.C.: Alterations to offices, etc., Abbey Road, for Messrs. W. Warne & Co., Ltd.; alterations and additions, North Street, for London Co-operative Society, Ltd.; thirty-nine garages, Cecil Avenue, for Mr. C. Gray; factory, Creeksmouth, for National Titanium Pigments, Ltd.

*

The Office of Works is to erect a telephone exchange in the vicinity of Cranbrook Wash, ILFORD.

*

The ILFORD Corporation has obtained a promise from the Ministry of Health to sanction a loan of £58,000 for the erection of new swimming baths, but the Corporation has been asked to discuss details with the Ministry.

*

The ILFORD Corporation is acquiring eight acres at Chadwell Heath Lane for the purpose of extending the isolation hospital.

*

The ILFORD Education Committee has acquired a site in Fencepiece Road, North Hainault, for the erection of an elementary school.

*

Plans passed by the REDDITCH U.D.C.: Four houses, Plymouth Road, for Mr. H. A. Bright; ten houses, Bromsgrove Road, for Mr. E. L. Lewis; four houses, Bridge Street, for Rural Council; recreation hall, Millsbro' Road, for Messrs. H. Terry and Sons, Ltd.

*

The REDDITCH U.D.C. is to discuss at a later meeting suggestions for the provision of new baths.

*

The Ministry of Health has acquiesced in the proposal of the POPLAR B.C. to erect 108 cottages at British Street, Millwall, at an estimated cost of £66,000.

*

The HORNSEY Corporation has selected a site in High Street, West Hornsey, for the erection of baths and washhouses. A school clinic is also to be erected on the site.

*

The HORNSEY Education Committee has approved plans for the erection of an open-air school at Coldfall.

*

A Douglas Haig Memorial Hall is to be erected at Elder Avenue, HIGHGATE, plans having been submitted to the local authority by Mr. A. G. Shearing, 8 View Road, Highgate.

A church hall is to be erected at Terterdown, MUSWELL HILL, by Mr. F. S. Griffith, of 36 Victoria Street, Westminster.

*

Plans passed by the HORNSEY Corporation: Four houses, Grand Avenue, for Mr. F. E. Glover, of 26 Smith Street, Clerkenwell; three shops and flats and block of six flats, Archway Road and Southwood Lane, for Mr. H. Homes, 5 Rosemount Terrace, Finchley; twelve houses, Wood Vale, for Messrs. Smerdon Bros., of Kentish Town; house, Courtenay Avenue, for Mr. W. Quennell; alterations, 42 Tottenham Lane, for Messrs. J. Willmot and Sons (Hornsey), Ltd.; mission hall, Park Road, for Mr. G. E. Clare, of 33 College Road, Harrow; classroom, St. Gilda's Convent School, Dickenson Road, for Mr. W. Oley, of 3 New Road, Crouch End; house, Denewood Road, for Mr. W. Quennell.

*

Plans have been prepared by Mr. R. Kitching Ellison, A.R.I.B.A., 5 York Buildings, Adelphi, W.C., for additions, alterations, and renovations at Stavordale Priory, WINCANTON, Somerset.

*

The city architect of SHEFFIELD has prepared plans for the erection of washhouses at Low Wincobank, and now been asked to obtain tenders for the work.

*

The OLDHAM Corporation has passed plans of the borough engineer for extensions and improvements at the Slack Valley sewage disposal works at an estimated cost of £38,000.

*

The Ministry of Health is to hold an inquiry into the proposal of the OLDHAM Corporation to complete the Blackstone Edge waterworks at an estimated cost of £50,000.

*

The borough engineer of OLDHAM has prepared preliminary proposals for the erection of a number of tenement dwellings for consideration by the Housing Committee.

*

Plans passed by the OLDHAM Corporation: Five houses, Burlington Avenue, for Messrs. A. Redfern and Sons; nine houses, Kingsley Road, for Mr. F. Thompson; extensions, 31 Plato Street, for Mr. E. A. Hollingsworth; boilerhouse, Roscoe Street, for Clarion Building Club; alterations, 196 Union Street, for Messrs. Johnson Bros., Ltd.; butcher's shop, Crowley Lane, for Mr. J. J. Crowther.

*

The BOLTON Education Committee has asked the Corporation Estates Committee for details of suites in the central area suitable for the erection of a technical college.

*

The Board of Education has agreed to the plans submitted by the Education Committee for the erection of an elementary school at Castle Hill, BOLTON.

The BOLTON Corporation has now arranged terms with the Bridgwater Estates, Ltd., for the acquisition of 22 acres at St. Helens Road and 18 acres at Smethurst Lane for housing purposes.

*

The BIRKENHEAD Corporation Estates Committee has agreed to receive a deputation from the Liverpool Architectural Society in connection with the layout scheme for the central station site.

*

The Ministry of Health has sanctioned the necessary loans in connection with the erection by the BIRKENHEAD Corporation of 208 houses on the Higher Bebington estate.

*

Plans have been submitted to the BIRKENHEAD Corporation for the erection of a picture theatre on part of the vacant site west of Borough Road, near Kingsland Road.

*

Plans passed by the YORK Corporation: New road, Holgate Gardens estate, for Yorkshire Insurance Co., Ltd.; four houses, Kilburn Road, for Messrs. Harrowell and Agar; six houses, Finsbury Avenue, for Mr. H. C. de Burgh; additions, St. Wilfred's School, Monkgate, for managers; additions, "Rose and Crown," Lawrence Street, for Messrs. J. Tetley and Sons, Ltd.; ten houses, Berkeley Street and Linton Street, for Messrs. W. E. Puckering & Co.; two houses, Oakland Avenue, for Mr. H. C. de Burgh; additions, St. George's School, Peel Street, for managers; two houses, Grange estate, for Mr. R. J. Pulleyn.

*

The MANCHESTER Corporation Housing Committee has arranged for nearly 300 houses to be erected by direct labour on the Barlow Moor estate.

*

The WARRINGTON Corporation has obtained sanction for a loan of £48,645 for the erection of 124 additional houses on the Bewsey estate.

*

The MANCHESTER Corporation is to erect swimming baths at Levenshulme at an estimated cost of £24,000.

*

Plans passed by the CHELTENHAM Corporation: Two houses, Pilford Gardens, for Mr. C. W. Phillips; house, Moorend Park Road, for Mr. R. H. Saunders; house, Old Bath Road, for Mr. H. H. Yolland; additions, stores, St. George's Place, for Messrs. Norton and Whitton; showrooms, Bath Road, for Messrs. Reed and Patterson.

*

The United Counties Omnibus Co., Ltd., is purchasing a site at the corner of Horseshoe Street and Gregory Street, NORTHAMPTON, for the erection of a bus station.

*

Mr. Hobbs is to develop the Mossford Green estate, Barkingside, ILFORD.

Plans passed by the SMETHWICK Corporation: Three houses, Vicarage Road, for Mr. J. C. Jones; alterations, 624 Bearwood Road, for Messrs. George Mason, Ltd.; pavilion and additions, Thimblemill Hotel, Thimblemill Road, for Messrs. Mitchells and Butlers, Ltd.; cooked meat and sausage factory, Great Arthur Street, for Messrs. Wilson Bros.; extensions to works, Grove Lane, for Messrs. E. J. Guest, Ltd.; extensions, offices, Dartmouth Road, for Birmingham Aluminium Casting Co., Ltd.; extensions, Soho Foundry, for Messrs. W. and T. Avery, Ltd.; twenty houses, Hugh Road, for Excelda Housing Society, Ltd.; fourteen houses, Jacmar Crescent, for Messrs. Strong Bros.; fourteen houses, Dibble estate, for Mr. James Everiss.

*

Plans passed by the BOLTON Corporation: Four houses, Sharples Road, for Mr. A. H. Price; two houses, Blackburn Road, for Mr. William Howarth; pavilion extension, Green Lane, for Railwaymen's Institute Committee; boiler-shed, Deane Road, for Messrs. J. Maude & Co., Ltd.; alterations, Commercial Hotel, Victoria Square, for Messrs. Magee, Marshall & Co., Ltd.; workshop, Breightmet Street, for Messrs. N. Isherwood & Co.; alterations, boilerhouse, Weston Street, for Messrs. W. and C. Ainsworth, Ltd.; two houses, Lakeside Avenue, for Mr. H. Holt; four houses, Hurst Street, for Mr. Maurice Welch; power-house, off Chorley New Road, for governors of Bolton School; house and shop, Glenburn Street, for Messrs. Magee, Marshall & Co., Ltd.; two houses, Devonshire Road, for Mr. Joseph Moss; house, Belmont Road, for Mr. Ernest Howarth.

*

Plans passed by NORTHAMPTON Corporation: Relief office and waiting-room, Portland Street, for Board of Guardians; reconstruction of tanks, pumphouse, new offices, etc., Bridge Street Station sidings, for British Petroleum Co., Ltd.; assembly room, Gipsy Lane, for Bethany Homesteads Committee; alterations, 73 St. Giles Street, for Messrs. Henson, Jackson and Chamberlain; extensions to cinema, Grove Road, for Mr. Norfolk; nurses' home, Billing Road, for governors of St. Andrew's Hospital; new streets off Gipsy Lane, for Messrs. Chowns, Ltd.; additional story, St. John's tannery, for Messrs. T. Collingridge & Co., Ltd.; extensions, 7 Mercers Row, for Messrs. McIlroys, Ltd.; two houses, Kettering Road, for Mr. C. H. Rainbow; house and shop, Beech Avenue, for Messrs. W. Richardson and Son; office and stores, 26 Kingsthorpe Grove, for Mr. J. W. Hucknall.

*

Messrs. Major & Co., Ltd., of DAGENHAM Dock are acquiring land for the extension of their premises.

*

The ESSEX C.C. and the EAST HAM Corporation have come to an arrangement for the erection of accommodation for 500 patients, either at Severalls or Brentwood.

# RATES OF WAGES

| | | | I | II |
|---|---|---|---|---|
| | | | s. d. | s. d. |
| A | ABERDARE | S. Wales & M. | 1 7½ | 1 2¾ |
| A₁ | Abergavenny | S. Wales & M. | 1 7 | 1 2½ |
| B | Abingdon .. | S. Counties | 1 5½ | 1 1¼ |
| A | Accrington | N.W. Counties | 1 7½ | 1 2¾ |
| A₃ | Addlestone | S. Counties | 1 6 | 1 1½ |
| A | Adlington .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | Airdrie .. | Scotland | •1 7½ | 1 2¾ |
| C₁ | Aldeburgh | E. Counties | 1 3 | 1 1½ |
| A | Altrincham | N.W. Counties | 1 7½ | 1 2¾ |
| B₃ | Appleby .. | N.W. Counties | 1 4 | 1 0 |
| A | Ashton-under-Lyne | N.W. Counties | 1 7½ | 1 2¾ |
| A₃ | Atherstone | Mid. Counties | 1 6 | 1 1½ |
| B₃ | Aylesbury .. | S. Counties | 1 4 | 1 0 |
| B₃ | BANBURY .. | S. Counties | 1 4 | 1 0 |
| B₂ | Bangor .. | N.W. Counties | 1 4½ | 1 0½ |
| A | BarnardCastle | N.E. Coast | 1 7½ | 1 2¾ |
| A | Barnsley .. | Yorkshire | 1 7½ | 1 2¾ |
| B₁ | Barnstaple | S.W. Counties | 1 5 | 1 0¾ |
| A | Barrow .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | Barry .. | S. Wales & M. | 1 7½ | 1 2¾ |
| B₃ | Basingstoke | S.W. Counties | 1 4 | 1 0 |
| B | Bath .. | S.W. Counties | 1 5½ | 1 1¼ |
| A | Batley .. | Yorkshire | 1 7½ | 1 2¾ |
| B | Bedford .. | E. Counties | 1 5½ | 1 1¼ |
| A₂ | Berwick-on-Tweed | N.E. Coast | 1 6½ | 1 2 |
| A₂ | Bewdley .. | Mid. Counties | 1 6½ | 1 2 |
| B₃ | Bicester .. | Mid. Counties | 1 4 | 1 0 |
| A | Birkenhead | N.W. Counties | •1 7½ | 1 2¾ |
| A | Birmingham | Mid. Counties | 1 7½ | 1 2¾ |
| A | Bishop Auckland | N.E. Coast | 1 7½ | 1 2¾ |
| A | Blackburn | N.W. Counties | 1 7½ | 1 2¾ |
| A | Blackpool | N.W. Counties | 1 7½ | 1 2¾ |
| A | Blyth .. | N.E. Coast | 1 7½ | 1 2¾ |
| B₃ | Bognor .. | S. Counties | 1 4 | 1 0 |
| A | Bolton .. | N.W. Counties | 1 7½ | 1 2¾ |
| A₂ | Boston .. | Mid. Counties | 1 6 | 1 1½ |
| B₁ | Bournemouth | S. Counties | 1 5 | 1 0¾ |
| B₂ | Bovey Tracey | S.W. Counties | 1 4½ | 1 0½ |
| A | Bradford .. | Yorkshire | 1 7½ | 1 2¾ |
| A₂ | Brentwood | E. Counties | 1 6½ | 1 2 |
| A | Bridgend .. | S. Wales & M. | 1 7½ | 1 2¾ |
| B₂ | Bridgwater | S.W. Counties | 1 4½ | 1 0½ |
| A₁ | Bridlington | Yorkshire | 1 7 | 1 2½ |
| A | Brighouse .. | Yorkshire | 1 7½ | 1 2¾ |
| B₁ | Brighton .. | S. Counties | 1 5 | 1 0¾ |
| A | Bristol .. | S.W. Counties | 1 7½ | 1 2¾ |
| B₃ | Brixham .. | S.W. Counties | 1 4 | 1 0 |
| A₂ | Bromsgrove | Mid. Counties | 1 6½ | 1 2 |
| C | Bromyard .. | Mid. Counties | 1 3½ | 11½ |
| A | Burnley .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | Burslem .. | Mid. Counties | 1 7½ | 1 2¾ |
| A₂ | Burton-on-Trent | Mid. Counties | 1 6½ | 1 2 |
| A | Bury .. | N.W. Counties | 1 7½ | 1 2¾ |
| A₁ | Buxton .. | N.W. Counties | 1 7 | 1 2½ |
| B | CAMBRIDGE | E. Counties | 1 5½ | 1 1¼ |
| B₂ | Canterbury | S. Counties | 1 4½ | 1 0½ |
| A | Cardiff .. | S. Wales & M. | 1 7½ | 1 2¾ |
| A | Carlisle .. | N.W. Counties | 1 7½ | 1 2¾ |
| B | Carmarthen | S. Wales & M. | 1 5½ | 1 1¼ |
| B₂ | Carnarvon | N.W. Counties | 1 4½ | 1 0½ |
| A₁ | Carnforth .. | N.W. Counties | 1 7 | 1 2½ |
| A | Castleford | Yorkshire | 1 7½ | 1 2¾ |
| B₁ | Chatham .. | S. Counties | 1 5 | 1 0¾ |
| B₁ | Chelmsford | E. Counties | 1 5 | 1 0¾ |
| A₃ | Cheltenham | S.W. Counties | 1 6 | 1 1½ |
| A | Chester .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | Chesterfield | Mid. Counties | •1 7½ | 1 2¾ |
| B₃ | Chichester | S. Counties | 1 4 | 1 0 |
| A | Chorley .. | N.W. Counties | 1 7½ | 1 2¾ |
| B₂ | Cirencester | S. Counties | 1 4½ | 1 0½ |
| A | Clitheroe .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | Clydebank | Scotland | 1 7½ | 1 2¾ |
| A | Coalville .. | Mid. Counties | 1 7½ | 1 2¾ |
| B | Colchester .. | E. Counties | 1 5½ | 1 1¼ |
| A | Colne .. | N.W. Counties | 1 7½ | 1 2¾ |
| A₃ | Colwyn Bay | N.W. Counties | 1 6 | 1 1½ |
| A | Consett .. | N.E. Coast | 1 7½ | 1 2¾ |
| A₃ | Conway .. | N.W. Counties | 1 6 | 1 1½ |
| A | Coventry .. | Mid. Counties | 1 7½ | 1 2¾ |
| A₃ | Crewe .. | N.W. Counties | 1 6 | 1 1½ |
| A₃ | Cumberland | ..... | 1 6 | 1 1½ |
| A | DARLINGTON | N.E. Coast | 1 7½ | 1 2¾ |
| A | Darwen .. | N.W. Counties | 1 7½ | 1 2¾ |
| B₂ | Deal .. | S. Counties | 1 4½ | 1 0½ |
| A₃ | Denbigh .. | N.W. Counties | 1 6 | 1 1½ |
| A | Derby .. | Mid. Counties | 1 7½ | 1 2¾ |
| A | Dewsbury | Yorkshire | 1 7½ | 1 2¾ |
| B | Didcot .. | S. Counties | 1 5½ | 1 1¼ |
| A | Doncaster | Yorkshire | 1 7½ | 1 2¾ |
| C₁ | Dorchester | S.W. Counties | 1 3 | 11½ |
| A₃ | Driffield .. | Yorks | 1 6 | 1 1½ |
| A₃ | Droitwich | Mid. Counties | 1 6 | 1 1½ |
| A₁ | Dudley .. | Mid. Counties | 1 7 | 1 2½ |
| A | Dundee .. | Scotland | 1 7½ | 1 2¾ |
| A | Durham .. | N.E. Coast | 1 7½ | 1 2¾ |
| B₁ | EASTBOURNE | S. Counties | 1 5 | 1 0¾ |
| A | Ebbw Vale | S. Wales & M. | 1 7½ | 1 2¾ |
| A | Edinburgh | Scotland | 1 7½ | 1 2¾ |
| A₁ | E. Glamorganshire & Monmouthshire | S. Wales & M. | 1 7 | 1 2½ |
| B | Exeter .. | S.W. Counties | •1 5½ | 1 1¼ |
| B₃ | Exmouth .. | S.W. Counties | 1 4½ | 1 0½ |
| B | FELIXSTOWE | E. Counties | 1 5½ | 1 1¼ |
| A₃ | Filey .. | Yorks | 1 6 | 1 1½ |
| A | Fleetwood .. | N.W. Counties | 1 7½ | 1 2¾ |
| B₂ | Folkestone | S. Counties | 1 4½ | 1 0½ |
| A | Frodsham .. | N.W. Counties | 1 7½ | 1 2¾ |
| B₃ | Frome .. | S.W. Counties | 1 4 | 1 0 |
| A | GATESHEAD | N.E. Coast | 1 7½ | 1 2¾ |
| B₁ | Gillingham | S. Counties | 1 5 | 1 0¾ |
| A₃ | Gloucester | S.W. Counties | 1 6 | 1 1½ |
| A₂ | Goole .. | Yorkshire | 1 6½ | 1 2 |
| B | Gosport .. | S. Counties | 1 5½ | 1 1¼ |
| A₃ | Grantham | Mid. Counties | 1 6 | 1 1½ |
| A₁ | Gravesend | S. Counties | 1 7 | 1 2½ |
| A | Greenock .. | Scotland | •1 7½ | 1 2¾ |
| A | Grimsby .. | Yorkshire | 1 7½ | 1 2¾ |
| B₁ | Guildford .. | S. Counties | 1 5 | 1 0¾ |
| A | HALIFAX .. | Yorkshire | 1 7½ | 1 2¾ |
| A | Hanley .. | Mid. Counties | 1 7½ | 1 2¾ |
| A | Harrogate .. | Yorkshire | 1 7½ | 1 2¾ |
| A | Hartlepools | N.E. Coast | 1 7½ | 1 2¾ |
| B₁ | Harwich .. | E. Counties | 1 5 | 1 0¾ |
| B₂ | Hastings .. | S. Counties | 1 4½ | 1 0½ |
| A₃ | Hatfield .. | S. Counties | 1 6 | 1 1½ |
| B | Hereford .. | S. W. Counties | 1 5½ | 1 1¼ |
| B | Hertford .. | E. Counties | 1 5½ | 1 1¼ |
| A₁ | Heysham .. | N.W. Counties | 1 7 | 1 2½ |
| A | Howden .. | N.E. Coast | 1 7½ | 1 2¾ |
| A | Huddersfield | Yorkshire | 1 7½ | 1 2¾ |
| A | Hull .. | Yorkshire | 1 7½ | 1 2¾ |

The initial letter opposite each entry indicates the grade under the Ministry of Labour schedule. The district is that to which the borough is assigned in the same schedule. Column I gives the rates for craftsmen; column II for labourers; the rate for craftsmen working at trades in which a separate rate maintains is given in a footnote. The table is a selection only. Particulars for lesser localities not included may be obtained upon application in writing.

| | | | I | II |
|---|---|---|---|---|
| | | | s. d. | s. d. |
| A | ILKLEY .. | Yorkshire | 1 7½ | 1 2¾ |
| A | Immingham | Mid. Counties | 1 7½ | 1 2¾ |
| B | Ipswich .. | E. Counties | 1 5½ | 1 1¼ |
| C₁ | Isle of Wight | S. Counties | 1 3 | 11½ |
| A | JARROW .. | N.E. Coast | 1 7½ | 1 2¾ |
| A | KEIGHLEY | Yorkshire | 1 7½ | 1 2¾ |
| B₁ | Kendal .. | N.W. Counties | 1 5 | 1 0¾ |
| B₁ | Keswick .. | N.W. Counties | 1 5 | 1 0¾ |
| A₃ | Kettering .. | Mid. Counties | 1 6 | 1 1½ |
| A₂ | Kidderminster | Mid. Counties | 1 6½ | 1 2 |
| B₂ | King's Lynn | E. Counties | 1 4½ | 1 0½ |
| A | LANCASTER | N.W. Counties | 1 7½ | 1 2¾ |
| A₂ | Leamington | Mid. Counties | 1 6½ | 1 2 |
| A | Leeds .. | Yorkshire | 1 7½ | 1 2¾ |
| A | Leek .. | Mid. Counties | 1 7½ | 1 2¾ |
| A | Leicester .. | Mid. Counties | 1 7½ | 1 2¾ |
| A | Leigh .. | N.W. Counties | 1 7½ | 1 2¾ |
| B₃ | Lewes .. | S. Counties | 1 4 | 1 0 |
| A₃ | Lichfield .. | Mid. Counties | 1 6 | 1 1½ |
| A | Lincoln .. | Mid. Counties | 1 7½ | 1 2¾ |
| A | Liverpool .. | N.W. Counties | •1 10 | 1 4½ |
| A₃ | Llandudno | N.W. Counties | 1 6 | 1 1½ |
| A | Llanelly .. | S. Wales & M. | 1 7½ | 1 2¾ |
| | London (12 miles radius) | | 1 9 | 1 4 |
| | Do. (12-15 miles radius) | | 1 8½ | 1 3½ |
| A | Long Eaton | Mid. Counties | 1 7½ | 1 2¾ |
| A | Loughborough | Mid. Counties | 1 7½ | 1 2¾ |
| A₃ | Luton .. | E. Counties | 1 6 | 1 1½ |
| A | Lytham .. | N.W. Counties | 1 7½ | 1 2¾ |
| A₁ | MACCLESFIELD | N.W. Counties | 1 7 | 1 2½ |
| B | Maidstone | S. Counties | 1 5½ | 1 1¼ |
| A₃ | Malvern .. | Mid. Counties | 1 6 | 1 1½ |
| A | Manchester | N.W. Counties | 1 7½ | 1 2¾ |
| A | Mansfield | Mid. Counties | 1 7½ | 1 2¾ |
| B₂ | Margate .. | S. Counties | 1 4½ | 1 0½ |
| A₃ | Matlock .. | Mid. Counties | 1 6 | 1 1½ |
| A₁ | Merthyr .. | S. Wales & M. | 1 7 | 1 2½ |
| A | Middlesbrough | N.E. Coast | 1 7½ | 1 2¾ |
| A₃ | Middlewich | N.W. Counties | 1 6 | 1 1½ |
| B₂ | Minehead .. | S.W. Counties | 1 4½ | 1 0½ |
| A | Monmouth | S. Wales & M. | 1 7½ | 1 2¾ |
| A₁ | S. and E. Glamorganshire Morecambe | N.W. Counties | 1 7 | 1 2½ |
| A₃ | NANTWICH | N.W. Counties | 1 6 | 1 1½ |
| A | Neath .. | S. Wales & M. | 1 7½ | 1 2¾ |
| A | Nelson .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | Newcastle .. | N.E. Coast | 1 7½ | 1 2¾ |
| A | Newport .. | S. Wales & M. | 1 7½ | 1 2¾ |
| A | Normanton | Yorkshire | 1 7½ | 1 2¾ |
| A₁ | Northampton | Mid. Counties | 1 7 | 1 2½ |
| A | North Staffs. | Mid. Counties | 1 7½ | 1 2¾ |
| A | North Shields | N.E. Coast | 1 7½ | 1 2¾ |
| A₃ | Norwich .. | E. Counties | 1 6 | 1 1½ |
| A | Nottingham | Mid. Counties | 1 7½ | 1 2¾ |
| A | Nuneaton .. | Mid. Counties | 1 7½ | 1 2¾ |
| B | OAKHAM .. | Mid. Counties | 1 5½ | 1 1¼ |
| A | Oldham .. | N.W. Counties | 1 7½ | 1 2¾ |
| A₃ | Oswestry .. | Mid. Counties | 1 6 | 1 1½ |
| B | Oxford .. | S. Counties | 1 6 | 1 1½ |
| A | PAISLEY .. | Scotland | •1 7½ | 1 2¾ |
| C | Pembroke | S. Wales & M. | 1 3½ | 11½ |
| A | Perth .. | Scotland | •1 7½ | 1 2¾ |
| A₃ | Peterborough | Mid. Counties | 1 6 | 1 1½ |
| A | Plymouth | S.W. Counties | •1 7½ | 1 2¾ |
| A | Pontefract | Yorkshire | 1 7½ | 1 2¾ |
| A₁ | Pontypridd | S. Wales & M. | 1 7 | 1 2½ |
| B | Portsmouth | S. Counties | 1 5½ | 1 1¼ |
| A | Preston .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | QUEENSFERRY | N.W. Counties | 1 7½ | 1 2 |
| A₃ | READING | S. Counties | 1 6 | 1 1½ |
| B | Reigate .. | S. Counties | 1 5½ | 1 1¼ |
| A₃ | Retford .. | Mid. Counties | 1 6 | 1 1½ |
| A₁ | Rhondda Valley | S. Wales & M. | 1 7 | 1 2½ |
| A₃ | Ripon .. | Yorkshire | 1 6 | 1 1½ |
| A | Rochdale .. | N.W. Counties | 1 7½ | 1 2¾ |
| B | Rochester .. | S. Counties | 1 5½ | 1 1¼ |
| A₁ | Ruabon .. | N.W. Counties | 1 7 | 1 2½ |
| A₂ | Rugby .. | Mid. Counties | 1 6½ | 1 2 |
| A₃ | Rugeley .. | Mid. Counties | 1 6 | 1 1½ |
| A | Runcorn .. | N.W. Counties | 1 7½ | 1 2¾ |
| A₃ | ST. ALBANS | E. Counties | 1 6 | 1 1½ |
| A | St. Helens .. | N.W. Counties | 1 7½ | 1 2¾ |
| B₃ | Salisbury .. | S.W. Counties | 1 4 | 1 0 |
| A₁ | Scarborough | Yorkshire | 1 7 | 1 2½ |
| A | Scunthorpe | Mid. Counties | 1 7½ | 1 2¾ |
| A | Sheffield .. | Yorkshire | 1 7½ | 1 2¾ |
| A | Shipley .. | Yorkshire | 1 7½ | 1 2¾ |
| A₃ | Shrewsbury | Mid. Counties | 1 6 | 1 1½ |
| A₂ | Skipton .. | Yorkshire | 1 6½ | 1 2 |
| A₃ | Slough .. | S. Counties | 1 6 | 1 1½ |
| A₂ | Solihull .. | Mid. Counties | 1 6½ | 1 2 |
| A₃ | South'pton | S. Counties | 1 6 | 1 1½ |
| A₂ | Southend-on-Sea | E. Counties | 1 6½ | 1 2 |
| A | Southport .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | S. Shields .. | N.E. Coast | 1 7½ | 1 2¾ |
| A₂ | Stafford .. | Mid. Counties | 1 6½ | 1 2 |
| A | Stockport .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | Stockton-on-Tees | N.E. Coast | 1 7½ | 1 2¾ |
| A | Stoke-on-Trent | Mid. Counties | 1 7½ | 1 2¾ |
| B | Stroud .. | S.W. Counties | 1 5½ | 1 1¼ |
| A | Sunderland | N.E. Coast | 1 7½ | 1 2¾ |
| A | Swadlincote | Mid. Counties | 1 7½ | 1 2¾ |
| A | Swansea .. | S. Wales & M. | 1 7½ | 1 2¾ |
| B | Swindon .. | S.W. Counties | 1 5½ | 1 1¼ |
| A₁ | TAMWORTH | N.W. Counties | 1 7 | 1 2½ |
| B₁ | Taunton .. | S.W. Counties | 1 5 | 1 0¾ |
| A | Teeside Dist. | N.E. Counties | 1 7½ | 1 2¾ |
| B | Teignmouth | S.W. Coast | 1 5½ | 1 1¼ |
| A | Todmorden | Yorkshire | 1 7½ | 1 2¾ |
| A₂ | Torquay .. | S.W. Counties | 1 7 | 1 2½ |
| C | Truro .. | S.W. Counties | 1 3½ | 11½ |
| B₁ | Tunbridge Wells | S. Counties | 1 5 | 1 0¾ |
| A | Tunstall .. | Mid. Counties | 1 7½ | 1 2¾ |
| A | Tyne District | N.E. Coast | 1 7½ | 1 2¾ |
| A | WAKEFIELD | Yorkshire | 1 7½ | 1 2¾ |
| A₁ | Walsall .. | Mid. Counties | 1 7 | 1 2½ |
| A | Warrington | N.W. Counties | 1 7½ | 1 2¾ |
| A₂ | Warwick .. | Mid. Counties | 1 6½ | 1 2 |
| A | Wellingborough | Mid. Counties | 1 6 | 1 1½ |
| A | West Bromwich | Mid. Counties | 1 7½ | 1 2¾ |
| B | Weston-s-Mare | S.W. Counties | 1 5½ | 1 1¼ |
| A₂ | Whitby .. | Yorkshire | 1 6½ | 1 2 |
| A | Widnes .. | N.W. Counties | 1 7½ | 1 2¾ |
| A | Wigan .. | N.W. Counties | 1 7½ | 1 2¾ |
| B₂ | Winchester | S. Counties | 1 4½ | 1 0½ |
| A₃ | Windsor .. | S. Counties | 1 6 | 1 1½ |
| A | Wolverhampton | Mid. Counties | 1 7½ | 1 2¾ |
| A₃ | Worcester | Mid. Counties | 1 6 | 1 1½ |
| A₃ | Worksop .. | Yorkshire | 1 6 | 1 1½ |
| A₁ | Wrexham .. | N.W. Counties | 1 7 | 1 2½ |
| B | Wycombe | S. Counties | 1 5½ | 1 1¼ |
| B₁ | YARMOUTH | E. Counties | 1 5 | 1 0¾ |
| B₂ | Yeovil .. | S.W. Counties | 1 4½ | 1 0½ |
| A | York .. | Yorkshire | 1 7½ | 1 2 |

• In these areas the rates of wages for certain trades (usually Painters and Plasterers) vary slightly from those given. The rates for each trade in any given area will be sent on request.

# PRICES CURRENT

## EXCAVATOR AND CONCRETOR

EXCAVATOR, 1*s.* 4*d.* *per hour;* LABOURER, 1*s.* 4*d.* *per hour;* NAVVY, 1*s.* 4*d.* *per hour;* TIMBERMAN, 1*s.* 5½*d.* *per hour;* SCAFFOLDER, 1*s.* 5*d.* *per hour;* WATCHMAN, 7*s.* 6*d.* *per shift.*

*

| | | | |
|---|---|---|---|
| *Broken brick or stone, 2 in., per yd.* | £0 | 11 | 6 |
| *Thames ballast, per yd.* | 0 | 11 | 0 |
| *Pit gravel, per yd.* | 0 | 18 | 0 |
| *Pit sand, per yd.* | 0 | 14 | 6 |
| *Washed sand* | 0 | 15 | 0 |

*Screened ballast or gravel, add 10 per cent. per yd.*
*Clinker, breeze, etc., prices according to locality.*

| | | | |
|---|---|---|---|
| *Portland cement, per ton* | £2 | 15 | 0 |
| *Lias lime, per ton* | 2 | 10 | 0 |

*Sacks charged extra at 1s. 9d. each and credited when returned at 1s. 6d.*
*Transport hire per day:*

| | | | | | | |
|---|---|---|---|---|---|---|
| *Cart and horse* | £1 | 3 | 0 | *Trailer* | £0 | 15 | 0 |
| *3-ton motor lorry* | 3 | 15 | 0 | *Steam roller* | 4 | 5 | 0 |
| *Steam lorry, 5-ton* | 4 | 0 | 0 | *Water cart* | 1 | 5 | 0 |

*

EXCAVATING and throwing out in ordinary earth not exceeding 6 ft. deep, basis price, per yd. cube . 0 3 0
Exceeding 6 ft., but under 12 ft., add 30 per cent.
In stiff clay, add 30 per cent.
In underpinning, add 100 per cent.
In rock, including blasting, add 225 per cent.
If basketed out, add 80 per cent. to 150 per cent.
Headings, including timbering, add 400 per cent.

| | | | |
|---|---|---|---|
| RETURN, fill, and ram, ordinary earth, per yd. | £0 | 1 | 6 |
| SPREAD and level, including wheeling, per yd. | 0 | 1 | 6 |
| FILLING into carts and carting away to a shoot or deposit, per yd. cube | 0 | 10 | 6 |
| TRIMMING earth to slopes, per yd. sup. | 0 | 0 | 6 |
| HACKING up old grano. or similar paving, per yd. sup. | 0 | 1 | 3 |
| PLANKING to excavations, per ft. sup. | 0 | 0 | 5 |

DO. over 10 ft. deep, add for each 5 ft. in depth, 30 per cent.

| | | | |
|---|---|---|---|
| IF left in, add to above prices, per ft. cube | 0 | 2 | 0 |
| HARDCORE, 2 in. ring, filled and rammed, 4 in. thick, per yd. sup. | 0 | 2 | 1 |
| DO. 6 in. thick, per yd. sup. | 0 | 2 | 10 |
| PUDDLING, per yd. cube | 1 | 10 | 0 |
| CEMENT CONCRETE, 4-2-1, per yd. cube | 2 | 3 | 0 |
| DO. 6-2-1, per yd. cube | 1 | 18 | 0 |

DO. in upper floors, add 15 per cent.
DO. in reinforced-concrete work, add 20 per cent.
DO. in underpinning, add 60 per cent.

| | | | |
|---|---|---|---|
| LIAS-LIME CONCRETE, per yd. cube | £1 | 16 | 0 |
| BREEZE CONCRETE, per yd. cube | 1 | 7 | 0 |
| DO. in lintels, etc., per ft. cube | 0 | 1 | 6 |
| CEMENT concrete 4 2-1 in lintels packed around reinforcement, per ft. cube | 0 | 3 | 9 |
| FINE concrete benching to bottom of manholes, per ft. cube | 0 | 2 | 6 |
| FINISHING surface of concrete spade face, per yd. sup. | 0 | 0 | 9 |

## DRAINER

LABOURER, 1*s.* 4*d.* *per hour;* TIMBERMAN, 1*s.* 5½*d.* *per hour;* BRICKLAYER, 1*s.* 9*d.* *per hour;* PLUMBER, 1*s.* 9*d.* *per hour;* WATCHMAN, 7*s.* 6*d.* *per shift.*

*

| | | | |
|---|---|---|---|
| *Stoneware pipes, tested quality, 4 in., per ft.* | £0 | 0 | 10 |
| DO. 6 *in., per ft.* | 0 | 1 | 3 |
| DO. 9 *in., per ft.* | 0 | 2 | 3 |
| *Cast-iron pipes, coated, 9 ft. lengths, 4 in., per yd.* | 0 | 5 | 6 |
| DO. 6 *in., per yd.* | 0 | 8 | 6 |
| *Portland cement and sand, see "Excavator" above.* | | | |
| *Leadwool per cwt.* | £2 | 0 | 0 |
| *Gaskin, per lb.* | 0 | 0 | 4½ |

*

| | | | |
|---|---|---|---|
| STONEWARE DRAINS, jointed in cement, tested pipes, 4 in., per ft. | 0 | 4 | 3 |
| DO. 6 in., per ft. | 0 | 5 | 0 |
| DO. 9 in., per ft. | 0 | 7 | 9 |
| CAST-IRON DRAINS, jointed in lead, 4 in., per ft. | 0 | 8 | 0 |
| DO. 6 in., per ft. | 0 | 10 | 0 |

*Note.*—These prices include digging concrete bed and filling for normal depths, and are average prices.
Fittings in Stoneware and Iron according to type. *See* Trade Lists.

## BRICKLAYER

BRICKLAYER, 1*s.* 9*d.* *per hour;* LABOURER, 1*s.* 4*d.* *per hour;* SCAFFOLDER, 1*s.* 5*d.* *per hour.*

*

| | | | |
|---|---|---|---|
| *London stocks, per M.* | £4 | 15 | 0 |
| *Fletons, per M.* | 3 | 0 | 0 |
| *Midhurst white facing bricks, per M.* | 5 | 0 | 0 |
| *T.L.B., multi-coloured facings, per M* | 7 | 7 | 9 |
| DO. *red best facings, per M* | 7 | 7 | 9 |
| DO. *rubbers 9½ in., per M* | 12 | 0 | 6 |
| *Staffordshire blue, per M.* | 9 | 10 | 0 |
| *Firebricks, 2½ in., per M.* | 11 | 3 | 0 |
| *Glazed salt, white, and ivory stretchers, per M.* | 24 | 10 | 0 |
| DO. *headers, per M.* | 24 | 0 | 0 |
| *Colours, extra, per M.* | 5 | 10 | 0 |
| *Seconds, less, per M.* | 1 | 0 | 0 |
| *Cement and sand, see "Excavator" above.* | | | |
| *Lime, grey stone, per ton* | 2 | 17 | 0 |
| *Mixed lime mortar, per yd.* | 1 | 6 | 0 |
| *Damp course, in rolls of 4½ in., per roll* | 0 | 2 | 6 |
| DO. 9 *in. per roll* | 0 | 4 | 9 |
| DO. 14 *in. per roll* | 0 | 7 | 6 |
| DO. 18 *in. per roll* | 0 | 9 | 6 |

| | | | |
|---|---|---|---|
| BRICKWORK in stone lime mortar, Flettons or equal, per rod | £33 | 0 | 0 |
| DO. in cement do., per rod | 36 | 0 | 0 |

DO. in stocks, add 25 per cent. per rod.
DO. in blues, add 100 per cent. per rod.
DO. circular on plan, add 12½ per cent. per rod.
DO. in backing to masonry, add 12½ per cent. per rod.
DO. in raising on old walls, etc., add 12½ per cent. per rod.
DO. in underpinning, add 20 per cent. per rod.

| | | | |
|---|---|---|---|
| HALF-BRICK walls in stocks in cement mortar (1–3), per ft. sup. | £0 | 1 | 0 |
| BEDDING plates in cement mortar, per ft. run | 0 | 0 | 3 |
| BEDDING window or door frames, per ft. run | 0 | 0 | 3 |
| LEAVING chases 2½ in. deep for edges of concrete floors not exceeding 6 in. thick, per ft. run | 0 | 0 | 2 |
| CUTTING do. in old walls in cement, per ft. run | 0 | 0 | 4 |
| CUTTING, toothing and bonding new work to old (labour and materials), per ft. sup. | 0 | 0 | 7 |
| TERRA-COTTA flue pipes 9 in. diameter, jointed in fireclay, including all cuttings, per ft. run | 0 | 3 | 6 |
| DO. 14 ft. by 9 in. do., per ft. run | 0 | 6 | 0 |
| FLAUNCHING chimney pots, each | 0 | 2 | 0 |
| CUTTING and pinning ends of timbers, etc., in cement | 0 | 1 | 0 |
| FACINGS fair, per ft. sup. extra | 0 | 0 | 3 |
| DO. picked stocks, per ft. sup. extra | 0 | 0 | 7 |
| DO. red rubbers gauged and set in putty, per ft. sup. extra | 0 | 4 | 9 |
| DO. in salt white or ivory glazed, per ft. sup. extra | 0 | 5 | 6 |
| TUCK pointing, per ft. sup. extra | 0 | 0 | 10 |
| WEATHER pointing, do. do. | 0 | 0 | 3 |
| TILE creasing with cement fillet each side per ft. run | 0 | 0 | 6 |
| GRANOLITHIC PAVING, 1 in., per yd. sup. | 0 | 5 | 0 |
| DO. 1½ in., per yd. sup. | 0 | 6 | 0 |
| DO. 2 in., per yd. sup. | 0 | 7 | 0 |
| If coloured with red oxide, per yd. sup. | 0 | 1 | 0 |
| If finished with carborundum, per yd. sup. | 0 | 0 | 6 |
| If in small quantities in finishing to steps, etc., per ft. sup. | 0 | 1 | 4 |
| Jointing new grano. paving to old, per ft. run | 0 | 0 | 4 |
| Extra for dishing grano, or cement paving around gullies, each | 0 | 1 | 6 |
| BITUMINOUS DAMP COURSE, ex rolls, per ft. sup. | 0 | 0 | 7 |
| ASPHALT (MASTIC) DAMP COURSE, ½ in., per yd. sup. | 0 | 8 | 0 |
| DO. vertical, per yd. sup. | 0 | 11 | 0 |
| SLATE DAMP COURSE, per ft. sup. | 0 | 0 | 10 |
| ASPHALT ROOFING (MASTIC) in two thicknesses, ½ in., per yd. | 0 | 8 | 6 |
| DO. SKIRTING, 6 in. | 0 | 3 | 11 |
| BREEZE PARTITION BLOCKS, set in cement, 1½ in. per yd. sup. | 0 | 5 | 3 |
| DO. DO. 3 in. | 0 | 6 | 6 |
| BREEZE fixing bricks, extra for each | 0 | 0 | 3 |

THE wages are the Union rates current in London at the time of publication. The prices are for good quality material, and are intended to cover delivery at works, wharf, station, or yard as customary, but will vary according to quality and quantity. The measured prices are based upon the foregoing, and include usual builders' profits. Though every care has been taken in its compilation it is impossible to guarantee the accuracy of the list, and readers are advised to have the figures confirmed by trade inquiry.

## MASON

MASON, 1*s.* 9*d.* *per hour;* DO. *fixer,* 1*s.* 10*d.* *per hour;* LABOURER, 1*s.* 4*d.* *per hour;* SCAFFOLDER, 1*s.* 5*d.* *per hour.*

*

| | | | |
|---|---|---|---|
| *Portland Stone:* | | | |
| *Whilbed, per ft. cube* | £0 | 4 | 6 |
| *Basebed, per ft. cube* | 0 | 4 | 7 |
| *Bath stone, per ft. cube* | 0 | 3 | 0 |
| *Usual trade extras for large blocks.* | | | |
| *York paving, av. 2½ in., per yd. super* | 0 | 6 | 6 |
| *York templates sawn, per ft. cube* | 0 | 6 | 9 |
| *Slate shelves, rubbed, 1 in., per ft. sup.* | 0 | 2 | 6 |
| *Cement and sand, see "Excavator," etc., above.* | | | |

*

| | | | |
|---|---|---|---|
| HOISTING and setting stone, per ft. cube | £0 | 2 | 2 |

DO. for every 10 ft. above 30 ft. add 15 per cent.

| | | | |
|---|---|---|---|
| PLAIN face Portland basis, per ft. sup. | £0 | 2 | 8 |
| DO. circular, per ft. sup. | 0 | 4 | 0 |
| SUNK FACE, per ft. sup. | 0 | 3 | 9 |
| DO. circular, per ft. sup. | 0 | 4 | 10 |
| JOINTS, arch, per ft. sup. | 0 | 2 | 6 |
| DO. sunk, per ft. sup. | 0 | 2 | 7 |
| DO. DO. circular, per ft. sup. | 0 | 4 | 6 |
| CIRCULAR-CIRCULAR work, per ft. sup. | 1 | 2 | 0 |
| PLAIN MOULDING, straight, per inch of girth, per ft. run | 0 | 1 | 1 |
| Do. circular, do., per ft. run | 0 | 1 | 4 |

| | | | |
|---|---|---|---|
| HALF SAWING, per ft. sup. | £0 | 1 | 0 |

Add to the foregoing prices, if in York stone, 35 per cent.
DO. Mansfield, 12½ per cent.
Deduct for Bath, 33⅓ per cent.
DO. for Chilmark, 5 per cent.

| | | | |
|---|---|---|---|
| SETTING 1 in. slate shelving in cement, per ft. sup. | £0 | 0 | 6 |
| RUBBED round nosing to do., per ft. lin. | 0 | 0 | 6 |
| YORK STEPS, rubbed T. & R., ft. cub. fixed | 1 | 9 | 0 |
| YORK SILLS, W. & T., ft. cub. fixed | 1 | 13 | 0 |
| ARTIFICIAL stone paving, 2 in. thick, per ft. sup. | 0 | 1 | 6 |
| DO. 2½ in. thick, per ft. sup. | 0 | 1 | 3 |

## SLATER AND TILER

SLATER, 1*s.* 9*d.* *per hour;* TILER, 1*s.* 9*d.* *per hour;* SCAFFOLDER, 1*s.* 5*d.* *per hour;* LABOURER, 1*s.* 4*d.* *per hour.*
N.B.—Tiling is often executed as piecework.

*

*Slates, 1st quality, per 1,200:*

| | | | | | | |
|---|---|---|---|---|---|---|
| *Portmadoc Ladies* | | | | £14 | 0 | 0 |
| *Countess* | | | | 27 | 0 | 0 |
| *Duchess* | | | | 32 | 0 | 0 |
| *Old Delabole* | *Med.* | *Grey* | | *Med.* | *Green* | |
| 24 in. × 12 in. | £42 | 11 | 3 | £45 | 1 | 0 |
| 20 in. × 10 in. | 31 | 4 | 3 | 33 | 0 | 6 |
| 16 in. × 10 in. | 20 | 18 | 0 | 22 | 4 | 9 |
| 14 in. × 8 in. | 12 | 1 | 0 | 12 | 16 | 3 |
| *Green Randoms, per ton* | | | | 8 | 3 | 9 |
| *Grey-green do., per ton* | | | | 7 | 3 | 9 |
| *Green peggies, 12 in. to 8 in. long, per ton* | | | | 6 | 3 | 9 |

*In 4-ton truck loads, delivered Nine Elms station.*

| | | | |
|---|---|---|---|
| *Clips, lead, per lb.* | £0 | 0 | 6 |
| *Clips, copper, per lb.* | 0 | 2 | 0 |
| *Nails, compo, per cwt.* | 1 | 6 | 0 |
| *Nails, copper, per lb.* | 0 | 1 | 10 |
| *Cement and sand, see "Excavator," etc., above.* | | | |
| *Hand-made tiles, per M.* | £5 | 18 | 0 |
| *Machine-made tiles, per M.* | 5 | 8 | 0 |
| *Westmorland slates, large, per ton* | 9 | 0 | 0 |
| DO. *Peggies, per ton* | 7 | 5 | 0 |

*

SLATING, 3 in. lap, compo nails, Portmadoc or equal:

| | | | |
|---|---|---|---|
| Ladies, per square | £4 | 0 | 0 |
| Countess, per square | 4 | 5 | 0 |
| Duchess, per square | 4 | 10 | 0 |
| WESTMORLAND, in diminishing courses, per square | 6 | 5 | 0 |
| CORNISH DO., per square | 6 | 3 | 0 |
| Add, if vertical, per square approx. | 0 | 13 | 0 |
| Add, if with copper nails, per square approx. | 0 | 2 | 6 |
| Double course at eaves, per ft. approx. | 0 | 1 | 0 |

SLATING with Old Delabole slates to a 3 in. lap with copper nails, at per square.

| | *Med.* | *Grey* | | *Med.* | *Green* | |
|---|---|---|---|---|---|---|
| 24 in. × 12 in. | £5 | 0 | 0 | £5 | 2 | 0 |
| 20 in. × 10 in. | 5 | 5 | 0 | 5 | 10 | 8 |
| 16 in. × 10 in. | 4 | 15 | 0 | 5 | 1 | 0 |
| 14 in. × 8 in. | 4 | 10 | 0 | 4 | 15 | 0 |
| Green randoms | | | | 6 | 7 | 0 |
| Grey-green do. | | | | 5 | 9 | 0 |
| Green peggies, 12 in. to 8 in. long | | | | 4 | 17 | 0 |
| TILING, 4 in. gauge, every 4th course nailed, in hand-made tiles, average per square | | | | 5 | 6 | 0 |
| DO., machine-made do., per square | | | | 4 | 17 | 0 |

Vertical Tiling, including pointing, add 18*s.* 0*d.* per square.

| | | | |
|---|---|---|---|
| FIXING lead soakers, per dozen | £0 | 0 | 10 |
| STRIPPING old slates and stacking for re-use, and clearing away surplus and rubbish, per square | 0 | 10 | 0 |
| LABOUR only in laying slates, but including nails, per square | 1 | 0 | 0 |

*See* "Sundries for Asbestos Tiling."

## CARPENTER AND JOINER

CARPENTER, 1*s.* 9*d.* *per hour;* JOINER, 1*s.* 9*d.* *per hour;* LABOURER, 1*s.* 4*d.* *per hour.*

*

*Timber, average prices at Docks, London Standard Scandinavian, etc. (equal to 2nds):*

| | | | |
|---|---|---|---|
| 7 × 3, per std. | £21 | 0 | 0 |
| 11 × 4, per std. | 33 | 0 | 0 |
| *Memel or Equal. Slightly less than foregoing.* | | | |
| *Flooring, P.E., 1 in., per sq.* | £1 | 2 | 6 |
| DO. *T. and G., 1 in., per sq.* | 1 | 2 | 6 |
| *Planed boards, 1 in. × 11 in., per std.* | 30 | 0 | 0 |
| *Wainscot oak, per ft. sup. of 1 in.* | 0 | 1 | 4 |
| *Mahogany, Honduras, per ft. sup. of 1 in.* | 0 | 1 | 3 |
| DO. *Cuba, per ft. sup. of 1 in.* | 0 | 2 | 3 |
| DO., *African, per ft. sup.* | 0 | 1 | 0 |
| *Teak, per ft. sup. of 1 in.* | 0 | 1 | 3 |
| DO., *ft. cube* | 0 | 12 | 6 |

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| | | | |
|---|---|---|---|
| FIR fixed in wall plates, lintels, sleepers, etc., per ft. cube | 0 | 5 | 6 |
| DO. framed in floors, roofs, etc., per ft. cube | 0 | 6 | 6 |
| DO. framed in trusses, etc., including ironwork, per ft. cube | 0 | 7 | 6 |

PITCH PINE, add 33⅓ per cent.

| | | | |
|---|---|---|---|
| FIXING only boarding in floors, roofs, etc., per sq. | 0 | 13 | 6 |
| SARKING FELT laid, 1-ply, per yd. | 0 | 1 | 6 |
| DO. 3-ply per yd. | 0 | 1 | 9 |
| CENTERING for concrete, etc., including horsing and striking, per sq. | 2 | 10 | 0 |
| TURNING pieces to flat or segmental soffits, 4½ in. wide, per ft. run | 0 | 0 | 4½ |
| DO. 9 in. wide and over per ft. sup. | 0 | 1 | 2 |

*continued overleaf*

## CARPENTER AND JOINER: *continued.*

| | | | |
|---|---|---|---|
| SHUTTERING to face of concrete, per square | £1 | 10 | 0 |
| DO. in narrow widths to beams, etc., per ft. sup. | 0 | 0 | 6 |
| USE and waste of timbers, allow 25 per cent. of above prices. | | | |
| SLATE BATTENING, per sq. | £0 | 12 | 6 |
| DEAL boarding to flats, 1 in. thick and firrings to falls, per square | 2 | 10 | 0 |
| STOUT feather-edged tilting fillet to eaves, per ft. run | 0 | 0 | 6 |
| FEATHER-edged springer to trimmer arches, per ft. run | 0 | 0 | 4 |
| STOUT herringbone strutting (joists measured in), per ft. run | 0 | 0 | 6 |
| SOUND boarding, ⅞ in. thick and fillets nailed to sides of joists (joists measured over), per square | 2 | 0 | 0 |
| RUBEROID or similar quality roofing, one ply, per yd. sup. | 0 | 2 | 3 |
| DO., two-ply, per yd. sup. | 0 | 2 | 6 |
| DO., three-ply, per yd. sup. | 0 | 3 | 0 |
| TONGUED and grooved flooring, 1½ in. thick, laid complete with splayed headings, per square | 2 | 5 | 0 |
| DEAL skirting torus, moulded 1½ in. thick, including grounds and backings, per ft. sup. | 0 | 1 | 0 |
| TONGUED and mitred angles to do. | 0 | 0 | 6 |
| WOOD block flooring standard blocks laid herringbone in mastic: | | | |
| Deal 1 in. thick, per yd. sup. | 0 | 10 | 0 |
| DO. 1½ in. thick, per yd. sup. | 0 | 12 | 0 |
| Maple 1½ in. thick, per yd. sup. | 0 | 15 | 0 |
| DEAL moulded sashes, 1⅛ in. with moulded bars in small squares, per ft. sup. | 0 | 2 | 6 |
| DO. 2 in. do., per ft. sup. | 0 | 2 | 9 |
| DEAL cased frames, oak sills and 2 in. moulded sashes, brass-faced pulleys and iron weights, per ft. sup. | 0 | 4 | 6 |
| MOULDED horns, extra each | 0 | 0 | 3 |
| DOORS, 4-panel square both sides, 1½ in. thick, per ft. sup. | 0 | 2 | 6 |
| DO. moulded both sides per ft. sup. | 0 | 2 | 9 |
| DO. 2 in. thick, square both sides, per ft. sup. | 0 | 2 | 9 |
| DO. moulded both sides, per ft. sup. | 0 | 3 | 0 |
| DO. in 3 panels, moulded both sides, upper panel with diminished stiles with moulded bars for glass, per ft. sup. | 0 | 3 | 6 |
| If in oak, mahogany or teak, multiply 3 times. | | | |
| DEAL frames, 4 in. × 3 in., rebated and beaded, per ft. cube | £0 | 15 | 0 |
| Add for extra labours, per ft. run | 0 | 0 | 1 |
| STAIRCASE work: | | | |
| DEAL treads 1⅛ in. and risers 1 in., tongued and grooved including fir carriages, per ft. sup. | 0 | 2 | 6 |
| DEAL wall strings, 1¼ in. thick, moulded, per ft. run | 0 | 2 | 6 |
| If ramped, per ft. run | 0 | 5 | 0 |
| SHORT ramps, extra each | 0 | 7 | 6 |
| ENDS of treads and risers housed to strings, each | 0 | 1 | 0 |
| 2 in. deal mopstick handrail fixed to brackets, per ft. run | 0 | 1 | 6 |
| 4½ in. × 3 in. oak fully moulded handrail, per ft. run | 0 | 5 | 6 |
| 1½ in. square deal bar balusters, framed in, per ft. run | 0 | 0 | 6 |
| FITTINGS: | | | |
| SHELVES and bearers, 1 in., cross-tongued, per ft. sup. | 0 | 1 | 6 |
| 1½ in. beaded cupboard fronts, moulded and square, per ft. sup. | 0 | 2 | 9 |
| TEAK grooved draining boards, 1½ in. thick and bedding, per ft. sup. | 0 | 4 | 6 |
| IRONMONGERY: | | | |
| Fixing only (including providing screws): | | | |
| TO DEAL— | | | |
| Hinges to sashes, per pair | 0 | 1 | 2 |
| DO. to doors, per pair | 0 | 1 | 7 |
| Barrel bolts, 9 in., iron, each | 0 | 1 | 0 |
| Sash fasteners, each | 0 | 1 | 0 |
| Rim locks, each | 0 | 1 | 9 |
| Mortice locks, each | 0 | 4 | 0 |

## SMITH

SMITH, *weekly rate equals* 1s. 9½d. *per hour;* MATE, *do.* 1s. 4d. *per hour;* ERECTOR, 1s. 9½d. *per hour;* FITTER, 1s. 9½d. *per hour;* LABOURER, 1s. 4d. *per hour.*

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| | | | |
|---|---|---|---|
| *Mild Steel in British standard sections, per ton* | £12 | 10 | 0 |
| *Sheet Steel:* | | | |
| *Flat sheets, black, per ton* | 17 | 0 | 0 |
| DO., *galvd., per ton* | 19 | 0 | 0 |
| *Corrugated sheets, galvd., per ton* | 18 | 10 | 0 |
| *Driving screws, galvd., per grs.* | 0 | 1 | 10 |
| *Washers, galvd., per grs.* | 0 | 1 | 1 |
| *Bolts and nuts per cwt. and up* | 1 | 18 | 0 |

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|---|---|---|---|
| MILD STEEL in trusses, etc., erected, per ton | 25 | 10 | 0 |
| DO., in small sections as reinforcement, per ton | 16 | 10 | 0 |
| DO., in compounds, per ton | 17 | 0 | 0 |
| DO., in bar or rod reinforcement, per ton | 20 | 0 | 0 |
| WROT-IRON in chimney bars, etc., including building in, per cwt. | 2 | 0 | 0 |
| DO., in light railings and balusters, per cwt. | 2 | 5 | 0 |
| FIXING only corrugated sheeting, including washers and driving screws, per yd. | 0 | 2 | 0 |

## PLUMBER

PLUMBER, 1s 9½d. *per hour;* MATE OR LABOURER, 1s. 4½d. *per hour.*

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| | | | |
|---|---|---|---|
| *Lead, milled sheet, per cwt.* | £1 | 9 | 0 |
| DO. *drawn pipes, per cwt.* | 1 | 10 | 0 |
| DO. *soil pipe, per cwt.* | 1 | 12 | 0 |
| DO. *scrap, per cwt.* | 1 | 0 | 0 |
| *Copper, sheet, per lb.* | 0 | 1 | 3 |
| *Solder, plumber's, per lb.* | 0 | 1 | 3 |
| DO. *fine, per lb.* | 0 | 1 | 9 |
| *Cast-iron pipes, etc.:* | | | |
| *L.C.C. soil, 3 in., per yd.* | 0 | 4 | 0 |
| DO. *4 in. per yd.* | 0 | 4 | 9½ |
| *R.W.P., 2½ in., per yd.* | 0 | 2 | 2 |
| DO. *3 in., per yd.* | 0 | 2 | 7 |
| DO. *4 in., per yd.* | 0 | 3 | 6½ |
| *Gutter, 4 in. H.R., per yd.* | 0 | 1 | 6½ |
| DO. *4 in. O.G., per yd.* | 0 | 1 | 10½ |

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| | | | |
|---|---|---|---|
| MILLED LEAD and labour in gutters, flashings, etc. per cwt. | 3 | 0 | 0 |
| LEAD PIPE, fixed, including running joints, bends, and tacks, ½ lr., per ft. | 0 | 2 | 0 |
| DO. ¾ in., per ft. | 0 | 2 | 3 |
| DO. 1 in., per ft. | 0 | 3 | 0 |
| DO. 1¼ in., per ft. | 0 | 4 | 0 |
| LEAD WASTE or soil, fixed as above, complete, 2½ in., per ft. | 0 | 6 | 0 |
| DO. 3 in., per ft. | 0 | 7 | 0 |
| DO. 4 in., per ft. | 0 | 9 | 9 |
| WIPED soldered joint, ½ in., each | 0 | 2 | 6 |
| DO. ¾ in., each | 0 | 3 | 2 |
| DO. 1 in., each | 0 | 3 | 8 |
| BRASS screw-down stop cock and two soldered joints, ½ in., each | 0 | 11 | 0 |
| DO. ¾ in., each | 0 | 13 | 6 |
| CAST-IRON rainwater pipe, jointed in red lead, 2½ in., per ft. run | 0 | 1 | 7 |
| DO. 3 in., per ft. run | 0 | 2 | 0 |
| DO. 4 in., per ft. run | 0 | 2 | 10 |
| CAST-IRON H.R. GUTTER, fixed, with all clips, etc., 4 in., per ft. | 0 | 2 | 0 |
| DO. O.G., 4 in., per ft. | 0 | 2 | 3 |
| CAST-IRON SOIL PIPE, fixed with caulked joints and all ears, etc., 4 in., per ft. | 0 | 4 | 6 |
| DO. 3 in., per ft. | 0 | 3 | 6 |
| Fixing only: | | | |
| W.C. PANS and all joints, P. or S., and including joints to water waste preventers, each | 2 | 5 | 0 |
| BATHS, with all joints | 1 | 3 | 6 |
| LAVATORY BASINS only, with all joints, on brackets, each | 1 | 10 | 0 |

## PLASTERER

PLASTERER, 1s. 9½d. *per hour (plus allowances in London only);* LABOURER, 1s. 4d. *per hour.*

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| | | | |
|---|---|---|---|
| *Chalk lime, per ton* | £2 | 17 | 0 |
| *Hair, per cwt.* | 2 | 0 | 0 |
| *Sand and cement see "Excavator," etc., above.* | | | |
| *Lime putty, per cwt.* | £0 | 2 | 9 |
| *Hair mortar, per yd.* | 1 | 7 | 0 |
| *Fine stuff, per yd.* | 1 | 14 | 0 |
| *Sawn laths, per bdl.* | 0 | 2 | 5 |
| *Keene's cement, per ton* | 5 | 15 | 0 |
| *Sirapite, per ton* | 3 | 10 | 0 |
| DO. *fine, per ton* | 3 | 18 | 0 |
| *Plaster, per ton* | 3 | 0 | 0 |
| DO. *per ton* | 3 | 12 | 6 |
| DO. *fine, per ton* | 5 | 12 | 0 |
| *Thistle plaster, per ton* | 3 | 9 | 0 |
| *Lath nails, per lb.* | 0 | 0 | 4 |

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| | | | |
|---|---|---|---|
| LATHING with sawn laths, per yd. | 0 | 1 | 7 |
| METAL LATHING, per yd. | 0 | 2 | 3 |
| FLOATING in Cement and Sand, 1 to 3, for tiling or woodblock, ⅜ in., per yd. | 0 | 2 | 4 |
| DO. vertical, per yd. | 0 | 2 | 7 |
| RENDER, on brickwork, 1 to 3, per yd. | 0 | 2 | 7 |
| RENDER in Portland and set in fine stuff, per yd. | 0 | 3 | 3 |
| RENDER, float, and set, trowelled, per yd. | 0 | 2 | 9 |
| RENDER and set in Sirapite, per yd. | 0 | 2 | 5 |
| DO. in Thistle plaster, per yd. | 0 | 2 | 5 |
| EXTRA, if on but not including lathing, any of foregoing, per yd. | 0 | 0 | 5 |
| EXTRA, if on ceilings, per yd. | 0 | 0 | 5 |
| ANGLES, rounded Keene's on Portland, per ft. lin. | 0 | 0 | 6 |
| PLAIN CORNICES, in plaster, per inch girth, including dubbing out, etc., per ft. lin. | 0 | 0 | 3 |
| WHITE glazed tiling set in Portland and jointed in Parian, per yd., from | 1 | 11 | 6 |
| FIBROUS PLASTER SLABS, per yd. | 0 | 1 | 10 |

## GLAZIER

GLAZIER, 1s. 8d. *per hour.*

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| | | | |
|---|---|---|---|
| *Glass: 4ths in crates:* | | | |
| *Clear, 21 oz.* | £0 | 0 | 4½ |
| DO. *26 oz.* | 0 | 0 | 5 |
| *Cathedral white, per ft.* | 0 | 0 | 7½ |
| *Polished plate, British ¼ in., up to 2 ft. sup. per ft.* | 0 | 1 | 2 |
| DO. *4 ft. sup.* ,, | 0 | 2 | 3 |
| DO. *6 ft. sup.* ,, | 0 | 2 | 6 |
| DO. *20 ft. sup.* ,, | 0 | 3 | 1 |
| DO. *45 ft. sup.* ,, | 0 | 3 | 3 |
| DO. *65 ft. sup.* ,, | 0 | 3 | 5 |
| DO. *100 ft. sup.* ,, | 0 | 3 | 10 |
| *Rough plate, ¼ in., per ft.* | 0 | 0 | 6½ |
| DO. *½ in. per ft.* | 0 | 0 | 6½ |
| *Linseed oil putty, per cwt.* | 0 | 15 | 0 |

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| | | | |
|---|---|---|---|
| GLAZING in putty, clear sheet, 21 oz. | 0 | 0 | 11 |
| DO. 26 oz. | 0 | 1 | 0 |
| GLAZING in beads, 21 oz., per ft. | £0 | 1 | 1 |
| DO. 26 oz., per ft. | 0 | 1 | 4 |

Small sizes slightly less (under 3 ft. sup.).
Patent glazing in rough plate, normal span, 1s. 6d. to 2s. per ft.

| | | | |
|---|---|---|---|
| LEAD LIGHTS, plain, med. sqs. 21 oz., usual domestic sizes, fixed, per ft. sup. and up | £0 | 3 | 0 |

Glazing only, polished plate 6½d. to 8d. per ft. according to size.

## PAINTER AND PAPERHANGER

PAINTER, 1s. 8d. *per hour;* LABOURER, 1s. 4d. *per hour;* FRENCH POLISHER, 1s. 9d. *per hour* PAPERHANGER, 1s. 8d. *per hour.*

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| | | | |
|---|---|---|---|
| *Genuine white lead, per cwt.* | £2 | 7 | 6 |
| *Linseed oil, raw, per gall.* | 0 | 3 | 6 |
| DO., *boiled, per gall.* | 0 | 3 | 8 |
| *Turpentine, per gall.* | 0 | 4 | 0 |
| *Liquid driers, per gall.* | 0 | 8 | 6 |
| *Knotting, per gall.* | 0 | 18 | 0 |
| *Distemper, washable, in ordinary colours, per cwt., and up* | 2 | 5 | 0 |
| *Double size, per firkin* | 0 | 3 | 6 |
| *Pumice stone, per lb.* | 0 | 0 | 4½ |
| *Single gold leaf (transferable), per book* | 0 | 2 | 0 |
| *Varnish, copal, per gall. and up* | 0 | 12 | 6 |
| DO., *flat, per gall.* | 1 | 2 | 0 |
| DO., *paper, per gall.* | 0 | 16 | 0 |
| *French polish, per gall.* | 0 | 17 | 6 |
| *Ready mixed paints, per gall. and up* | 0 | 15 | 0 |

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| | | | |
|---|---|---|---|
| LIME WHITING, per yd. sup. | 0 | 0 | 3 |
| WASH, stop, and whiten, per yd. sup. | 0 | 0 | 6 |
| DO., and 2 coats distemper with proprietary distemper, per yd. sup. | 0 | 0 | 9 |
| KNOT, stop, and prime, per yd. sup. | 0 | 0 | 7 |
| PLAIN PAINTING, including mouldings, and on plaster or joinery, 1st coat, per yd. sup. | 0 | 0 | 10 |
| DO., subsequent coats, per yd. sup. | 0 | 0 | 9 |
| DO., enamel coat, per yd. sup. | 0 | 1 | 2½ |
| BRUSH-GRAIN, and 2 coats varnish, per yd. sup. | 0 | 3 | 8 |
| FIGURED DO., DO., per yd. sup. | 0 | 5 | 6 |
| FRENCH POLISHING, per ft. sup. | 0 | 1 | 2 |
| WAX POLISHING, per ft. sup. | 0 | 0 | 6 |
| STRIPPING old paper and preparing, per piece | 0 | 1 | 7 |
| HANGING PAPER, ordinary, per piece | 0 | 1 | 10 |
| DO., fine, per piece, and upwards | 0 | 2 | 4 |
| VARNISHING PAPER, 1 coat, per piece | 0 | 9 | 0 |
| CANVAS, strained and fixed, per yd. sup. | 0 | 3 | 0 |
| VARNISHING, hard oak, 1st coat, yd. sup. | 0 | 1 | 2 |
| DO., each subsequent coat, per yd. sup. | 0 | 0 | 11 |

## SUNDRIES

*Fibre or wood pulp boardings, according to quality and quantity.*
*The measured work price is on the same basis . . . per ft. sup.* £0 0 2½

| | | | |
|---|---|---|---|
| FIBRE BOARDINGS, including cutting and waste, fixed on, but not including studs or grounds per ft. sup. . . . from 3d. to | 0 | 0 | 6 |
| *Plaster board, per yd. sup.* . from | 0 | 1 | 7 |
| PLASTER BOARD, fixed as last, per yd. sup. . . . . from | 0 | 2 | 8 |
| *Asbestos sheeting, 5/32 in., grey flat, per yd. sup.* | 0 | 2 | 3 |
| DO., *corrugated, per yd. sup.* | 0 | 3 | 3 |
| ASBESTOS SHEETING, fixed as last, flat, per yd. sup. | 0 | 4 | 0 |
| DO., corrugated, per yd. sup. | 0 | 5 | 0 |
| ASBESTOS slating or tiling on, but not including battens, or boards, plain "diamond" per square, grey | 2 | 15 | 0 |
| DO., red | 3 | 0 | 0 |
| *Asbestos cement slates or tiles, 5/32 in. punched per M. grey* | 16 | 0 | 0 |
| DO., *red* | 18 | 0 | 0 |
| ASBESTOS COMPOSITION FLOORING: Laid in two coats, average ⅜ in. thick, in plain colour, per yd. sup. | 0 | 7 | 0 |
| DO., ½ in. thick, suitable for domestic work, unpolished, per yd. | 0 | 6 | 6 |
| *Metal casements for wood frames, domestic sizes, per ft. sup.* | 0 | 1 | 6 |
| DO., *in metal frames, per ft. sup.* | 0 | 1 | 9 |
| HANGING only metal casement in, but not including wood frames, each | 0 | 2 | 10 |
| BUILDING in metal casement frames, per ft. sup. | 0 | 0 | 7 |

*Waterproofing compounds for cement.* Add about 75 per cent. to 100 per cent. to the cost of cement used.

PLYWOOD, per ft. sup.

| Thickness | 3/16 in. | | | ¼ in. | | | ⅜ in. | | | ½ in. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Qualities .. | AA. | A. | B. | AA. | A. | B. | AA. | A. | B. | AA. | A. | B. |
| | d. | d. | d. | d. | d. | d. | d. | d. | d. | d. | d. | d. |
| Birch .. .. | 4 | 3 | 2 | 5 | 4 | 3 | 7½ | 6 | 4½ | 8½ | 7 | 6 |
| Alder .. .. | 3½ | 3 | 2 | 5 | 4 | 3 | 6½ | 5½ | 4½ | 8 | 7 | 6 |
| Gaboon Mahogany | 4 | 3 | 3 | 6½ | 5½ | 4 | 9½ | 7½ | — | 1 0½ | 10 | — |
| Figured Oak 1 side | 8½ | 7 | — | 10 | 8 | — | 11½ | — | — | 1 6 | — | — |
| Plain Oak 1 side | 6½ | 6 | — | 7½ | 7 | — | 9½ | — | — | 1 0 | — | — |
| Oregon Pine | 5 | 4 | — | 5½ | 5 | — | 6 | — | — | — | — | — |

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